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WAXED PAPER TRADE CUSTOMS AND STANDARDS

American Waxed Paper Association Adopts an Interesting Set of Trade Customs and Standards—Members of the Association Will Fully Guarantee These Classifications To Their Customers To the End That Buyers Will Not Be Satisfied With Substitutes and Will Request and Demand In Their Specifications the Proper Character of Paper For Their Special Uses

The PAPER TRADE JOURNAL in its report of the recent meeting of the American Waxed Paper Association referred to the trade customs and standards adopted by the association. These are not only important to the members of the association but to the paper trade in general and they are therefore published in full herewith:

Trade Customs

COUNT

A ream of waxed paper shall consist of 480 sheets.

BASIS

The basis of weight shall be on size 24″ x 36″—480, after waxing. The weight after waxing shall be used in designating the weight of the paper.

MARKING

No package shall be marked, stenciled or labeled by the manufacturer with other than the actual size, weight, count, contents or grade.

CANCELLATION OR CHANGE

After acceptance and acknowledgement of an order, the right is retained by the manufacturer to refuse to permit changes or cancellations, unless the buyer agrees to reimburse the seller for any actual expense incurred in the preparation of the order.

NET WEIGHT

No allowance to be made for the weight of cores, plugs or wrappers on roll waved paper, and quotations are to specify that price includes the weight of such cores, plugs and wrappers. Iron cores may be returnable at price invoiced, freight prepaid by customer.

COMMERCIAL DELIVERY

(a) A delivery which averages not more than 7½ per cent over or under specified basis weight shall constitute a good delivery on an order, and not subject to rejection or allowance on that account.

(b) All orders are to be accepted subject to a variation of 15 per cent over or under the quantity ordered.

FREIGHT

All deliveries shall be on the basis of F. O. B. Mill.

TERMS OF SALE

Terms of sale shall be 2 per cent 10 days, 30 days net, from date of invoice.

RETURNS

No allowance shall be made for the return of rolls with one inch less in thickness unused, whether plain or printed waxed paper.

CLAIMS

For the mutual protection of both buyer and seller, claims must be made within ten (10) days after receipt of goods. No paper on which claim has been made may be used or returned until seller has had opportunity to inspect same or until adjustment has been made.

WAXED PAPER BY THE POUND

All Waxed Paper except Lunch Rolls and light weight tissues under eighteen pounds weight, shall be sold by the pound.

DIVIDED SHIPMENTS

Orders calling for divided shipments, all of which are to be specified within ninety days from the date of the first shipment, will take the price of the total quantity of the order. Any shipment remaining unspecified beyond ninety days shall be billed to the customers at the price of the quantities shipped each time. At the expiration of 90 days, any balance unspecified shall be billed to the customer at the quantity price, or shall take the price of the quantity shipped each time thereafter.

Wax and Waxed Paper Standards

WAX

1. All paraffine wax used in the manufacture of waxed paper used for food products shall be fully refined, odorless and tasteless. The quality of wax now made and commonly shipped in barrels, does not meet these specifications.

2. Experience has proven the necessity of using different melting point waxes on papers to be used for various purposes. The following melting points are adopted as standards and specificially designated, as follows:

123/25 to be known as Refined Wax—D.
133/35 to be known as Refined Wax—C.
135/37 to be known as Refined Wax—B.
138/40 to be known as Refined Wax—A.

The above figures are all based on American Melting Point. As certain refiners are adopting different melting point standards, confusion can be avoided by stating all wax as the equivalent of this American Melting Point.

WAXED PAPERS

In submitting recommendations for the standardization of Waxed Papers, the Association has had in mind primarily two points:

FIRST: That there should be a general classification distinguishing a full bleached all sulphite sheet from a sheet in which any un-

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CANADIAN PAPER COMPANIES MAKING FINE 1924 SHOWING

Abitibi Power and Paper Co. Ltd. Earns Enough During First Seven Months of Year to Take Care of All Requirements—Spanish River Pulp and Paper Mills Expected to Make Brilliant Annual Statement Soon—Brompton Pulp and Paper Co., Ltd. Establishes Montreal Selling Office—Showing of Laurentide Co., Ltd. for Fiscal Year Said to Be Better Than That Made in 1923.

[FROM OUR REGULAR CORRESPONDENT.]

MONTREAL, Que., Aug. 4, 1924.—That the Abitibi Power and Paper Company, Limited, has been able during the first seven months of this year to earn all its fixed charges, its preferred dividend, and the distribution on the common by a considerable margin is a statement made by an interest close to the company. So attractive has been this margin of profit that the company has been encouraged to make heavy inroads into its indebtedness to the banks, which was carried at an even $1,000,000 in the balance sheet for the year ended December 31, last. This, at least, is the statement made and while it is accepted as accurate by the source from which it comes, the management at the head office refuse either to confirm or deny the truth of the statement. A local authority on Abitibi states, however, that this is the case. Earnings thus far this year, he says, have been satisfactory and have more than taken care of all requirements, including the common dividend. The board has viewed the situation so favorably that they decided to reduce the current liabilities by practical elimination of that item, which has during the past few years been the point of much comment—bank loans. Of course, he does not state that it will not again be necessary this year for the company to go to the banks in order to finance its wood requirements, but he does point to the development as being a favorable indication of what the company has been able to do in the first part of the current year, during which time newsprint was sold mostly at $75 per ton. It is not expected that the slight weakening of the paper market will materially reduce the company's earnings for the balance of year, barring unexpected developments as output is well contracted for.

Annual Statement Nearly Ready

What will probably prove the most brilliant of the 1924 crop of annual statements by locally listed industrial companies is that of Spanish River Pulp and Paper Mills which will be forthcoming around the middle of September. Shareholders will have ample grounds for gratification in an exhibit which will show net profit of around $3,500,000 as compared with $2,183,417 last year, with working capital of approximately $10,000,000, with no indebtedness at the banks (there was a bank loan of $1,000,000 last year) and with a surplus of six and one-half millions as compared with $4,485,000 last year. After the payment of preferred dividends there will remain applicable to common shares over 2¾ millions or nearly thirty per cent. Funded debt has been decreased by about a half million dollars during the year. Spanish River's advance in the past few years has been a remarkable one reflecting the sort of administration which brings joy to shareholders. Forced to finance its expansion under difficult circumstances which set pessimistic heads wagging, the company, nevertheless, was able a little later to meet such a trying period as that of 1921-22. Despite the so-well-remembered conditions of that period the company disappointed hosts of calamity howlers and came through with dividends earned and paid, and with added strength for future operations. The year 1922-23 was a good one for the company which gathered further strength and the fiscal year that has just come to a close has placed the company in a position to rank with the foremost industrials of the country. It has improved its position as to limits to an extent not realized by the public, and has inaugurated the policy of conservation and replenishment of these limits with a view to assisting the natural reproduction of wood and obtaining a sustained yield. The company also has freehold land holdings of great value. Altogether the company is in a position to face with equanimity even the worst situation pictured by the pessimists on the news print industry.

Brompton Co.'s Selling Office

The Brompton Pulp and Paper Company, Limited, has established a selling office in Montreal, and offices have been opened in the Drummond Building. For some time past the company has maintained selling branches in New York and other American cities, but Montreal and district sales have been taken care of largely from the head office as well as from the plant offices. Opening of this additional branch is in line with the company's aggressive sales campaign and it is believed that from now on greater attention will be given to the building up of its clientele in Canada. The last annual financial statement showed net working capital of somewhat in excess of $1,000,000 about steady with the 1922 showing. There was cash on hand of $618,720, receivables of $936,459 and inventories of $2,709,509. Payables, amounted to $787,059, accruals $590,115, materials in transit, $36,963; and reserves totalling $828,562, plus bank loans, as before stated, of $1,000,000.

The Laurentide Company

It is believed that the fiscal year of Laurentide Company, Limited, which closed on June 30 was a good one. While no semi-official forecasts are yet available it is understood that the showing will be somewhat better than that for the 1923 period when 6.9 per cent was earned on the capital stock. Unofficial estimates of 1924 earnings run all the way from 7 to 12 per cent.

Injunction Against Hagar Co. Modified

CEDARVILLE, Ohio, July 28, 1924.—A temporary restraining order issued in Common Pleas Court against The Hagar Straw Board and Paper Company at a hearing some time ago has been modified to permit the Hagar Company to discharge its waste element into Massies Creek as long as no poisonous matter is in it.

The plaintiffs, Paul James and others, have given notice through their attorney, Charles Darlington, of appealing the case to the Greene County Court of Appeals, and have filed an appeal bond of $100.

The Hagar Company has been the center of complaints from inhabitants living along the Massies Creek, for several years, who have at different times alleged that the water into which the waste matter of the company is being emptied, is being polluted resulting in the killing of stock.

The Hagar Company, contends that the waste, which is poured into the creek, is entirely free from poisonous elements and that over $50,000 has been spent by the company in order to insure that the waste water from the mill is free from pollution and not poisonous to stock or fish.

At the first hearing the result of the injunction suit against the company by Paul James and others, the Court issued a temporary restraining order against the company.

Wilson W. Galloway, manager of the firm said that company officials were pleased over the modification order and declared that the company has taken all necessary precautions to prevent pollution of the stream.

Luzerne Paper Co. to Start Old Nuera Mill

[FROM OUR REGULAR CORRESPONDENT.]

HADLEY, N. Y., August 4, 1924.—The Luzerne Paper Corporation which has taken over the old Nuera Paper Company mill here is getting its organization together and plans to start operations on the board machine very soon.

CONDITIONS LOOK BETTER TO CHICAGO PAPER TRADE

Developments in Commercial and Political World Satisfy Paper Men That Business Will Soon Be Looking Up—Demand for Book Papers Shows Marked Improvement While Bond Papers Remain Quiet—Semi-Annual Meeting of National Paper Trade Association to be Held in Chicago on October 13, 14, and 15—New Containers to Sell Only to Packers of Quality Products.

[FROM OUR REGULAR CORRESPONDENT.]

CHICAGO, Ill., August 4, 1924.—Recent developments in the commercial, business and political world have cheered members of all divisions of the paper industry centering in Chicago. A better feeling prevails all around. Even in branches of the industry where actual business transacted at present shows no improvement, factors have assumed renewed confidence and look forward to an early resumption of active buying. Prices have shown signs of stiffening and in some cases have even taken a higher level.

In book papers trade has given evidences of improvement. It is said that printers are more actively in the market. The chief executive of a paper house here stated that a certain Chicago printer who specializes only in high grade work has had more business placed on his books in the past den days than he had for the thirty days preceding. The paper house executive who gives this information further says that quite a large number of Fall advertising campaigns are now beginning to take definite form with every prospect that they will continue well into the next season. There are a great many inquiries abroad, some of which never get beyond that stage. But an increasing number are materializing each week.

Bond Paper Still Quiet

The bond paper market is still reported as being quiet. It seems that this class of paper does not get started. It has continued to be spotty for the last two months but this condition should clear up ere long and then a healthier situation will ensue.

As yet there has been no change for the better in coarse papers, except some certain line, such as bags. These have been the subject of considerable sales effort of late and with the possibility that the price of them will go higher in a short time, consumers are turning their attention to making purchases early.

It is the general belief among those in that branch of the industry that the board and container market is on the upgrade. Indications point to a shoving up of present price quotations. In justifying this predication board men point to the increase in the price of raw material such as pulp and paper stock. Besides this, there is every evidence of a stronger demand for boards and containers for reports are circulating that the so-called dry goods business has been given an impetus lately which is speeding up production at the manufacturing points. This in turn is certain to be reflected in the container market for some of these industries are heavy purchasers of containers but have been conspicuously absent from the market for several months.

Paper Stock Men Report Heavier Buying

Almost anything above what has been doing in the paper stock division could be called heavier buying, for stocks went very slow up until last week. But a turn for the better has taken place and what little accumulations were built up are rapidly fading away under the stronger purchasing. Increased activity in the paper board and container field is having its effect on the paper stock supply. Increases in price have gone into effect within the last seven days, not so much in the higher grades, but in the common varieties. For instance, both mixed papers and old newspapers, both grades have advanced $2 per ton each, while ledgers, writings and books advanced $3 per ton. Roofing stock last week went up to $42 per ton on No. 1 grade and continues to hold that level, with a not too strong supply on hand in warehouses here. It is quite probable that roofing stock will not climb any higher but remain at present levels for some time.

National Paper Trade Association Semi-Annual

Announcement has just been made by Charters K. Higgins, of the National Paper Trade Association, who has his headquarters in the Conway Building, of this city, that the National organization will hold its semi-annual meeting at the Drake Hotel in Chicago, for three days, October 13, 14 and 15. It is not yet possible to announce details of the program but there is a good deal that is already tentatively scheduled to come up for attention of the industry.

Only Quality Produce in Fibopak

There is to be one unique feature in the marketing of fibopaks, the new container to be manufactured by Julian Armstrong, Inc., it is announced at headquarters of the company in the Wrigley Building here. This container will be sold only to concerns which will guarantee to pack only quality produce in it for shipment. Usually, it is a matter of no concern to the manufacturer just what is shipped in the container after he sells it, provided, of course, the container will do the work. Therefore, this policy of the Julian Armstrong organization is an innovation in container use so far as the manufacturer is concerned with it. While the Fibopak is not exactly a new product, having been on the market for several years, it is new with the Armstrong concern, because it was only recently taken over.

View Entire Paper Plant in Five Minutes

The ten new post card views of operations at the plant of the Champion Coated Paper Company, at Hamilton, Ohio, might almost be called "A Trip Through a Paper Plant in Five Minutes." That is what this set of views really is. Each card is of ordinary post card size with a picture on one side and the other arranged for an address, postage stamp and a brief message. Each picture occupies the entire one side except a strip across the bottom one-half inch deep on which the title and brief description is printed. In the first picture the general exterior view of the plant is given from the air, followed by others in their order such as the beating engines, paper machines, coating machines, the calendering room, sheet cutting, sorting and last of all a closeup of the plant from the river side and in three smaller views on the same double card are other views of Champion holdings. This is the wind-up practically of a huge campaign of advertising promulgated by the company and which has been described in these columns from time to time in the past numbers.

Activities of the Paper Trade

Vacation season is not over as yet as is evidenced by the departure last week of J. T. Hillyer, manager of the Whittaker Paper Company, on his annual vacation. He was accompanied by Mrs. Hillyer and both will spend a month visiting California and the west.

H. B. Law, of the Dwight Brothers Paper Company, has just returned to his desk after a most enjoyable three weeks' vacation.

Peter G. Thomson, Sr., president of the Champion Coated Paper Co., Hamilton, Ohio, together with Mrs. Thomson, left on Saturday, August 2, for a two months' tour of Europe and particularly of Italy. They are expected to return about October 1.

Mr. and Mrs. J. B. Jones have just announced the marriage of their daughter, Dorothy Rose, to Ladd E. Hoover, of Omaha, Neb., which took place on July 16.

P. A. Van Vlack, president of the Moser Paper Company, Chicago, has just come back from his annual vacation, while E. H. Buchanon of the same concern is now away on his.

PHILADELPHIA FINE PAPER MEN MAY TAKE MONTH'S REST

At Thursday's Meeting They Will Consider Advisability of Suspending Meetings for Remainder of Summer—New Rossiter Interests Operating Peerless Manufacturing Co.—H. C. Davis Paper Co. Adds New Lines to Its Distribution—Whiting Patterson Co. Takes on Lancaster Bonds—Stokes and Smith Develop New Type of Gluer—Paper Manufacturing Co. Sells Old Home.

[FROM OUR REGULAR CORRESPONDENT.]

PHILADELPHIA, Pa., August 4, 1924.—Decision as to whether to suspend the meetings of the Fine Paper Divison of the Philadelphia Paper Trade Association for the remainder of the summer will be reached when the distributors gather in the Bourse at the weekly luncheon on Thursday of this week. Because of the absence from the city of members of the Association the weekly sessions are sparsely attended and those who remain in town are expected to call off the August gatherings because of lack of patronage and its consequent failure to promote any trade measures that may come up for lack of a quorum. A. Hartung Inc., through a member of the corporation, will act as Chairman at the meeting this week. If the Fine Paper Dealers decide to postpone the sessions for the remainder of the summer they will follow in the footsteps of their trade brethren in the Wrapping Paper Division who at the July gathering adjourned for the summer and will not meet again until the September days.

New Owners of Peerless Manufacturing Co.

Operation of the Peerless Manufacturing Company, recently removed to Oaks, Pa., is now being conducted under the new Rossiter interests which recently acquired control of the company. The Peerless Company is engaged in the manufacture of towels, toilets and napkins and formerly was located in Norristown, Pa. About six months ago the company removed all its equipment to the new mills at Oak just outside Norristown and is now running to full capacity. The new management took over the former interest of J. Claude Smith, sole survivor of the original company composed of George Buchanan, one of the founders of the Garrett-Buchanan Company and Mr. Smith.

H. C. Davis Paper Co. Adds New Lines

Since his entrance into business on his own account a little over two years ago many additions have been added to the lines of papers carried by H. C. Davis, head of the fine paper distributing house bearing is name and located in the Drexel Building, and these have been agumented by the recently acquired distribution for this territory of the Glendale and Flivver bonds and ledgers made by the Kalamazoo Vegetable Parchment Company. Mr. Davis announces that his firm is the only one in this city stocking these bonds and ledgers and that he will carry a complete stock in his warehouses ready for immediate distribution. In addition to the Kalamazoo lines there is also stocked the Southworth Company's bonds and ledgers and the Visible Water Marked papers for which the Davis Company is Philadelphia distributor. A special package service has been developed by the Davis Company whereby the consumers of paper are accommodated with small lot units of 160 lbs. It has been the desire of the Davis Company to provide a service whereby the consumer may be able to secure bundle shipments at the same prices of case lots to meet the present day demands for purchases only for immediate needs and so the stocking of paper has been arranged in these 160 pound packets.

Whiting Patterson Co. Expands Stocks

Announcement is being sent to the trade by the Whiting Patterson Company of its addition of the Lancaster Bonds made by the Gilbert Paper Company and which it proposes to carry in stock in white only. The announcement is accompanied by a sample booklet of the papers prepared by the Gilbert Company of Menasha, Wis., and showing actual engraved and printed specimens of the papers. The Whiting-Patterson Company now is conducting a drive on the Active Bonds specializing on the improved sheet of white and colors which the manufacturers, the Collins Manufacturing Company of Wilbraham, have added to its products. President Allen R. Whiting of the Whiting-Patterson Company is now in Europe where he will spend the entire summer months in combined business and pleasure trip. He will return to Philadelphia in September. E. A. Hunter formerly connected with the sales organization of the Dill and Collins company is now associated with the Whiting Patterson Company covering the printing and publishing trades.

New Products for Enterprise Compnay

Summertime and year round specialties have been added to the stocks carried by the Enterprise Paper Company, coarse paper and specialty distributors. The newest of these are the Vortex ice cream and soda fountain plates and cups made by the Vortex Company of Chicago. The Enterprise Company has been appointed sole distributor for the Vortex specialties and also has taken over the exclusive Eastern Distribution of the Champion Dish Company made by the Riley Sweers Company of Toledo, Ohio.

Stokes and Smith Develop New Machines

The paper converting machine manufacturing company of Stokes and Smith, Summerdale Station, has developed a new type gluer to be used in conjunction with its paper wrapping machines. Although the company but recently placed the automatic gluer on the market, following a long period of experimentation in its shops, the perfecting of the gluer along more efficient lines has resulted in the development of two new models that have been offered in recent weeks. The new machines are offered in two sizes Models "404" and "405" realizing equally the goal of reliable convenient and durable machines. Both models embrace all the essential features necessary for an automatic machine some of the improvements being of a marked type. Among the mechanical advantages are substantial construction, simplicity of adjustment, economy in the use of glue and its correct control, substantial character of journals and shafts, easy new method of cleaning the glue pan and rollers, the pan being of large capacity. Among the factors of special importance are the direct control of feeding mechanism and delivery conveyor by the Wrapping Machine insuring perfect timing; the control of the tempering of the glue and its adjustemnt to meet various conditions of paper and of atmosphere; large capacity of feeding tables; reduction in waste material and the wide scope of its application and adaptability. Sales Manager George Z. Sutton of the Company attended the Convention of the National Container Association held in Atlantic City last week.

Paper Manufacturers Co. Sells Building

Disposition of the old home of the Paper Manufacturers Company was made last week through the sale of the building which the firm formerly occupied and owned at 526-528 Cherry street. The building, a six story structure, was given over to the Paper Company's needs before its expansion and occupation of the half million dollar plant it erected for its own purposes more than a year ago. The old home was sold for $80,000 to the William H. Horstman Company, now occupying an adjacent structure at 5th and Cherry streets.

Daily Newspaper Corp. to Start Sept. 1

TONAWANDA, N. Y., August 4, 1924.—The Daily Newspaper Corporation is planning to start operations at its plant about September 1. The company has a Rice, Bartan & Fales Fourdrinier, about 210 inches which it plans to run at about 500 feet per minute on magazine paper.

MATHIESON System

Let the List Speak for Itself!

THE following prominent paper mills use and indorse the Mathieson System for preparing bleach liquors from Liquid Chlorine:

Champion Fibre Company, Canton, N. C.
Consolidated Water Power & Paper Co., Appleton, Wis.
Crystal Tissue Company, Middletown, Ohio
Dill & Collins Company, Philadelphia, Pa.
District of Columbia Paper Mfg. Co., Washington, D. C.
Hammermill Paper Company, Erie, Pa.
Hamersley Mfg. Co., Garfield, N. J.
Mead Fibre Company, Kingsport, Tenn.
Nekoosa-Edwards Paper Company, Port Edwards, Wis.
Port Huron Sulphite & Paper Company, Port Huron, Mich.
Provincial Paper Mills, Port Arthur, Ont., Can.
Riordon Pulp Corp., Hawkesbury, Ont., Can.
S. George Company, Wellsburg, W. Va.
Sweet Bros. Mfg. Co., Inc., Phoenix, N. Y.
The Smith Paper Company, Lee, Mass.

Could there be any more convincing evidence of the superiority of our system than the names in the above list?

The MATHIESON ALKALI WORKS Inc.
25 WEST 43rd STREET NEW YORK CITY
PHILADELPHIA PROVIDENCE CHICAGO CHARLOTTE

EAGLE THISTLE PRODUCTS

Deal Direct with the Manufacturer

Bicarbonate of Soda
Liquid Chlorine-Caustic Soda
Sesquicarbonate of Soda
Bleaching Powder-Soda Ash

WRAPPING DUTIABLE AS IMITATION PARCHMENT

WASHINGTON, D. C., August 6, 1924.—The Treasury Department has held in a decision just announced that wrapping paper which resembles parchment in appearance and which is used for wrapping meat and other greasy foods is properly dutiable as imitation parchment paper under paragraph 1305 of the Tariff Act at the rate of 3 cents per pound and 15 per centum ad valorem.

Judge Moss' Opinion

Judge McKenzie Moss, Assistant Secretary of the Treasury, in a communication on this subject to the Collector of Customs at New York says:

"The Department refers to your letter transmitting a communication from the Appraiser at your port, dated May 17, in regard to the classification of wrapping paper which, the Appraiser states, resembles parchment in appearance, and which is used by butchers, delicatessen dealers, and others for wrapping meat and other greasy foods. The Appraiser states that the paper is composed either entirely of sulphite pulp, or af sulphite pulp with an admixture of mechanical wood pulp ,and that the stock is subjected to an unusual or extended process of beating in the course of manufacture which renders the paper grease and water resistant to a limited extent.

"It appears from the Appraiser's letter that hearings were held in his office in regard to the proper classification of this paper at which importers and domestic manufacturers appeared and presented their views upon the subject. It further appears from the Appraiser's letter that it is the present practice to advisorily classify this wrapping paper at the rate of 30 per centum ad valorem under Paragraph 1309, as the term "greaseproof" and "imitation parchment" in Paragraph 1305 were considered by his office to be synonymous terms, and that paper which was not greaseproof was not properly subject to classification as imitation parchment paper.

Department Unable to Concur

"The Department notes from a perusal of the stenographic report of the hearing, enclosed with your letter, that the importers contend that the words "Greaseproof" and "imitation parchment" paper are synonymous, and that no paper which is not greaseproof is subject to duty as imitation parchment paper.

"The Department has given this matter careful consideration, but is unable to concur in the position taken by the importers that the terms above quoted should be construed as applying to the same kind of paper. If Congress had intended that the quoted terms should be construed as synonymous, it would seem that the disjunctive conjunction "or" would have been used instead of the conjunction "and", so that the provision would have appeared in the paragraph as "greaseproof" or "imitation parchment" paper.

"If the contention of the importers is correct, there would appear to be no good purpose served by providing for imitation parchment paper at the same rate as greaseproof paper, as the provision for greaseproof paper would cover all imitation parchment paper which is greaseproof.

"In view of the foregoing, the Department is of the opinion that Congress in providing for imitation parchment paper intended to provide for a paper resembling in appearance and in some of its qualities parchment paper, but a paper not necessarily greaseproof, and this view seems to be supported by the Court of Customs Appeals in T.D. 33221 covering certain supercalendered, greaseproof paper known as glassine or parchmyn paper which was intended for use in wrapping greasy substances.

Were Supported by Testimony

"The Court in discussing the testimony taken before the Board stated that the evidence disclosed that the paper imitated true parchment paper in appearance and use, and possessed, although in lesser measure, certain of its characteristic qualities, and the Court in expressing its approval of the Board's decision stated that the Board's decision seemed to be well supported by the testimony, and that while it was true that the inportation was not exactly like parchment paper and did not fully possess all of its valuable qualities, it nevertheless was enough like parchment paper to be called an imitation thereof and apparently was designed by the manufacturers to go into use as an imitation of the original and genuine parchment paper.

"Referring to the contention of the importers that paper, unless it is greaseproof, is not properly dutiable as imitation parchment paper. I deem it pertinent to quote a part of the Court's decision above cited.

" 'The importers, however, lay particular emphasis upon the fact that the importation is not entirely greaseproof, which they claim is always the case with true parchment paper. But on the other hand, the article is partially greaseproof, and this quality is one which gives it a substantial part of its value.'

Dutiable as Imitation Parchment

"Following the reasoning of the Court in the above cited decision, the Department is of the opinion that paper of the character described by the Appraiser in his letter of May 17 is properly dutiable as imitation parchment paper under Paragraph 1305 of the Tariff Act at the rate of 3c per pound and 15 per centum ad valorem. You will be governed accordingly as to merchandise of the character described, imported or withdrawn from customs custody thirty days after the date hereof."

May Start Eagle Box Board Mill

MAUMEE, Ohio, August 24, 1924.—Through action of the Maumee Chamber of Commerce an effort is being made to assist in the financing of the proposition submitted to James J. Hinde of Sandusky, well known practical paper manufacturer, and a friend af the late Daniel Carney, former proprietor of the paper mill here.

After long litigation with the Eagle Box Board and Paper Mill Company, with which local people are familiar, the mill reverted to the possession of Mr. Carney's widow, Mrs. Lois Carney, and through her Mr. Hinde has become interested in the proposition, along with Sandusky and Cleveland capitalists.

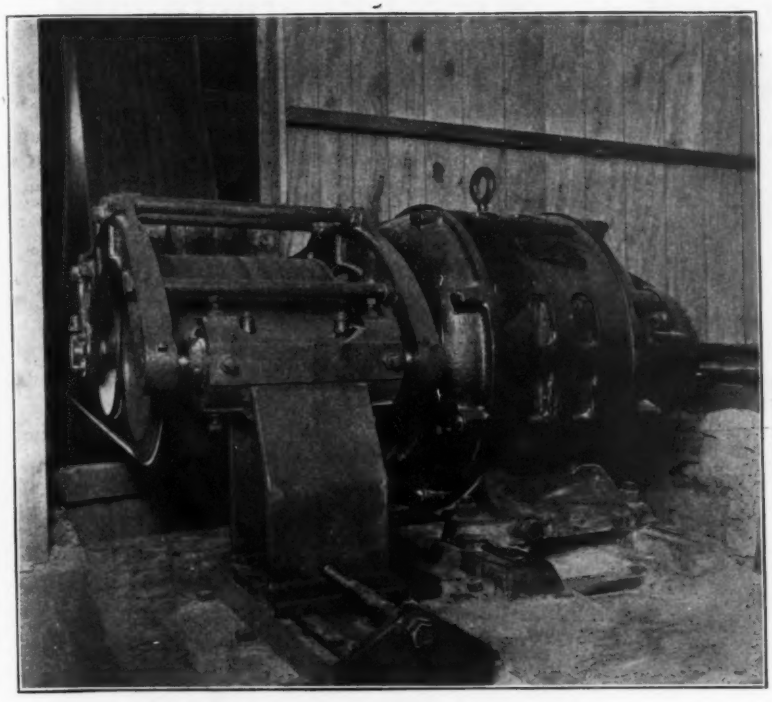
Mr. Hinde was in town recently by appointment and conferred with a committee appointed by the Chamber of Commerce, and made it plain that while the company furnishes the most of the capital it is desired that Maumee give its moral and to a limited extent its financial aid.

His proposition is to capitalize the plant at $100,000 and dispose of approximately $10,000 of the stock in Maumee, the balance being retained by the company.

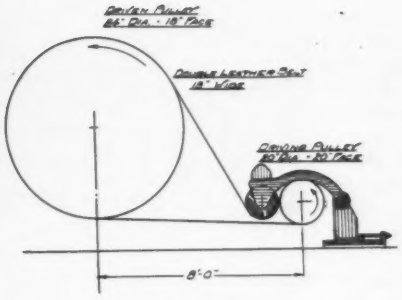
It is proposed to manufacture building board and box board from cornstalks and straw, this section being able to furnish the raw material in vast quantities. Mr. Hinde promises that at least 40 people would be employed at the plant at the start.

Changes in U. S. Envelope Co.

SPRINGFIELD, Mass., August 4, 1924.—Willard E. Swift of Worcester has been elected second vice-president of the United States Envelope Company and chairman of the Executive Committee, and James B. Thayer of this city elected assistant general manager. These positions were held by the late Louis H. Buckley. T. E. Morris of Waukegan, Ill., has been elected member of the Executive Committee. The semi-annual dividend of $3.50 on preferred and $4 on common stock has been declared.



Pulmax Drive Operating Jaw Crusher



Details of Drive

Where Elasticity Counts

Pulmax Short Center Drive enables machines to be belted under the most severe operating conditions. Where load variations are sharp the elasticity of the leather belt proves of great advantage.

The photograph shows a Pulmax Drive operating 84-inch fly wheel of a jaw crusher in a stone crushing plant. Conditions are bad. The drive is exposed to dust and weather. Load variations are sharp.

Elasticity has saved motor and bearings. The Short Pulley Centers saved the cost of an addition to the crusher building. The drive was started in the spring of 1922. There have been no maintenance charges and no "shutdowns." The belt is still in good condition.

Short Center Drives are best

It would be well to consider the installation of Pulmax Drives in your mill. Write for the Pulmax booklet.

BIRD MACHINE COMPANY

Pulmax Drive Division

South Walpole Massachusetts

6871

Pulmax Drive

Trade-Marks Department

CONDUCTED BY NATIONAL TRADE-MARK CO., WASHINGTON, D. C.

The following are trade-mark applications pertinent to the paper field pending in the United States Patent Office, which have been passed for publication and are in line for early registration unless opposition is filed promptly. For further information address National Trade Mark Company, Barrister Bldg., Washington, D. C., trade-mark specialists. As an additional service feature to its readers, PAPER TRADE JOURNAL gladly offes to them an advance search free of charge on any mark they may contemplate adopting or registering.

SAFETEE—No. 183,158. Louis J. Kolb, Philadelphia, Pa. For paper in sheet and web form.

SUN-MOON—No. 189,904. W. E. Lee & Co., Inc. Plant City, Fla. For fresh citrous fruits.

SHURADRES—No. 193,528. Magill-Weinsheimer Co., Chicago, Ill. For window envelopes.

SAFADRES—No. 193,529. Same as above.

DR. P. PHILLIPS—No. 193,624. Dr. P. Phillips Company, Orlando, Fla. For

BANNER—No. 194,356. The Jones Book Store, Inc., Los Angeles, Calif. For social, commercial and school stationery.

CROWNOLO—No. 194,632. David Umanoff, N. Y. City. For attachments for telephones, said attachments being in the nature of telephone indexes.

JIMMY BOOK—No. 195,245. The Universal Press, Inc., Chicago. For albums.

PULL THE STRING—No. 195,549. Pull The String Mailing Wrapper Company, Chicago, Ill. For mailing wrapper.

C. N. B.—No. 195,629. Christian N. Bergmann, Pittsburgh, Pa. For paper containers or cups.

MIMEO-BOND—No. 195,825. A. R. Meeker & Co., Newark, N. J. For paper, viz, mimeograph and writing paper.

NUKAN—No. 196,107. Eastern Paper Can and Tube Company, Boston, Mass. For paper cans.

MULTIFAX—No. 196,172. Horder's, Inc., Chicago, Ill. For loose-leaf devices.

GROCERY BOY—No. 196,529. Southern Wooden Ware Company, Nashville, Tenn. For paper bags.

BUFFALO and representation thereof—No. 196,809. Joseph Hooz, Philadelphia, Pa. For writing paper, box paper, envelopes, napkins and toilet paper.

SUNBEAM—No. 180,824. Austin, Nichols & Co., Inc., Brooklyn, N. Y. For toilet paper.

THREE LEAF—No. 182,072. Straubel Machine Company, Green Bay, Wis. For paper napkins, towels, etc.

REPRESENTATION OF A BEAR'S HEAD—No. 187,287. Blake, Moffitt & Towne, San Francisco, Cal. For paper.

REPRESENTATION OF A SICKLE—No. 187,962. Sichel-Bleistriftfabrik A. G. Vorm, M. Meinctsberger & Co., Nuremberg, Germany. For paper, pencils, blotters, etc.

CHAMPION—No. 189,239. The Champion Conserver Company, Cincinnati, Ohio. For carbon paper.

AVALON—No. 191,555. National Paper Products Company, San Francisco, Calif. For toilet paper.

PURITY—No. 195,485. Brooks Paper Company, St. Louis, Mo. For tissue paper, vegetable parchment, wax paper, paper excelsior and paper napkins.

BLUE GOOSE—No. 196,607. Myers Paper Company, Memphis, Tenn. For writing tablets, pencils, writing paper, crayons and penn staffs.

CELLOGLAS—No. 196,325. Westfield River Paper Company, Inc., Russell, Mass. For wrapping and transparent paper.

SUNSET MILLS—No. 196,989. Stone and Forsyth Company, Boston, Mass. For napkins, wrapping papers, wrapping tissue papers.

CURRENCY TRUST—No. 197,135. Combe Printing Company, St. Joseph, Mo. For writing paper.

TREASURY—No. 197,139. Empire Paper Company, Chicago, Ill. For writing paper.

Recent Incorporations

THE DENVER FIBER BOX COMPANY, Colorado. Incorporators: C. E. Kinsey, Frank Madison Palm. Capitalization, 50,000 shares of stock with no par value; seat of business, Denver.

THE COLE SIMPLIFOLD BOX CO., Akron, Ohio. Manufacturing, buying and selling paper boxes. Capital, $10,000. Incorporators: Harry Cole, E. G. Staley, Cleo B. Hunt and W. J. K. Hunt, all of Akron.

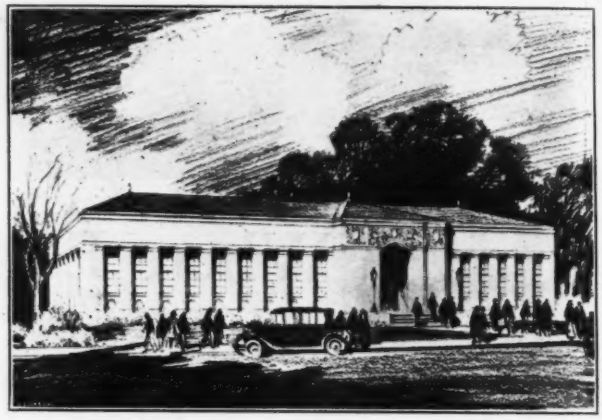
WABASH PAPER & IRON CO., Toledo, Ohio. Capital, $15,000. Incorporators: Louis Shuer, Abraham Levine.

MORGANTOWN WALL PAPER COMPANY, Morgantown, West Virginia. Retail. Capital, $5,000. Incorporators: W. C. Howell, H. M. Howell, Dove Howell, Mattie E. Davis, W. D. Gibson, Morgantown.

Pioneer Paper Co. Builds New Offices

[FROM OUR REGULAR CORRESPONDENT.]

LOS ANGELES, Cal., July 31, 1924.—The Pioneer Paper Company of Los Angeles will transfer its general offices from the downtown district to its new administration building, just completed at a cost



NEW OFFICE BUILDING OF PIONEER PAPER CO.

of approximately $100,000, on September 1, according to an announcement by William Henry, vice-president and general manager of the concern.

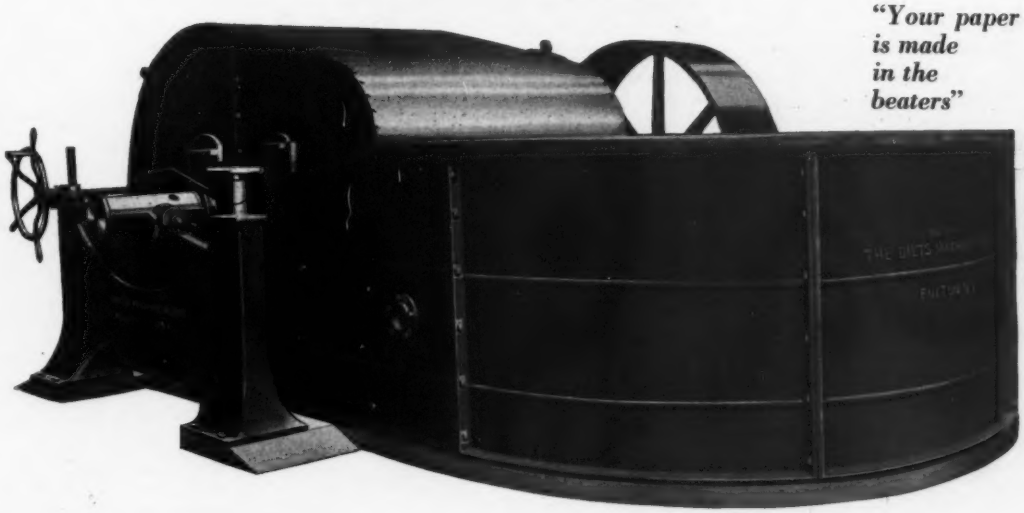
The new administration building is located on the firm's plant site in the industrial district of Los Angeles and is of Spanish Renaissance style of architecture. Architects Morgan, Walls and Clements prepared the plans for the building which is a novel one. A celebration and banquet will mark the opening of the administration building, Mr. Henry states. The entire plant of the Pioneer Paper Company represents an investment of approximately $2,000,000.

Buy Warehouse in Somerville, Mass.

BOSTON, Mass., July 28, 1924.—A business which has continued in operation for three generations in one family, is the record of the J. J. Graham Paper Company, Inc., of Boston and Cambridge, Mass. Many changes have taken place in the paper industry and paper stock business since J. J. Graham founded this busineess fifty-three years ago. In keeping with the progress in the paper industry, the Graham business has grown until today it is recognized as the largest packer of waste papers in the East. The company is celebrating the arrival of the third generation in their business family, J. J. Graham, Jr., grandson of the founder, by purchasing a new warehouse in Somerville, Mass. This plant is one of the best equipped in the East and the only one in New England with two railroad sidings, enabling them to handle carload lots direct to all points.

Dilts

"Your paper is made in the beaters"



Have You Ample Beater Capacity ?

THE entire profits of a mill having an equipment investment of $400,000 or $500,000 may be held up because of lack of beating capacity. An extra Dilts Beater, costing much less than 1% of the total mill investment protects your profits. Most unsuccessful mills are underequipped with beaters.

7015

Dilts

MACHINE WORKS, Inc. FULTON, N.Y.

EXPORT OFFICE ~15 PARK ROW~ NEW YORK CITY

WHY ARE PHOTOGRAPHIC PAPERS COATED WITH BARIUM SULPHATE?*

Originally, in making photographic papers, the sensitized emulsion was applied directly to the base; but at present most of the so-called bromide papers are first coated with blanc fixe, so that they consist of three different layers:

(1) The base, or raw stock, consisting of paper of suitable thickness, weight, color, etc., which vary according to the nature of the photographic paper required;

(2) The barium sulphate coating;

(3) The sensitized emulsion, which is the only portion which is affected by light during the photographic operations.

Layers Must Adhere Perfectly

These three layers must adhere perfectly to one another, and during the various manipulations to which photographic papers are subjected they must remain together as an entity and show no signs of separating or of behaving differently from one another.

Some natural grain papers are not coated with barium sulphate; for instance, buff bromide papers. The reason is that the manufacturer wants to retain the natural grain of the raw stock; and naturally he does not apply a coating which would destroy or mask it. But there is a growing tendency to give a very light coating, even in such case, without calendering so as to interfere as little as possible with the grain.

It is quite natural to wonder why barium sulphate should be applied at all. Would not the paper possess the same quality if this operation were omitted? And in such a case the finished paper would be cheaper, since it would have to undergo one operation less. It is true that the earlier sensitized papers consisted merely of a base with a sensitive emulsion on top; but they had the following defects:

(1) The surface was not sufficiently smooth and even, and was too porous;

(2) The surface was not sufficiently glossy; and finally,

(3) They did not give pictures having the same depth and finish as do modern papers, which show up the picture much better.

Intermediate Coating Used

An intermediate coating was then used between the base and the emulsion, its thickness varying according to the quality, color, grain, and smoothness of the raw stock, and the finish required for the photographs (matt, velvet, semi-glossy, glossy, etc.). This coating consists essentially of gelatin and of barium sulphate, or blanc fixe. Similar reasons have led to the manufacture of so-called coated paper, which is now extensively used for catalogues, illustrated magazines, etc.

Easily Appreciated Differences

In order to appreciate the difference in appearance of coated and uncoated emulsified papers, one need only compare a cut of an article as reproduced in a de luxe catalogue and the same article as depicted in an advertisement in a daily newspaper. In the former the picture stands out well, the outline is clear and the details show up well on the smooth brilliant background; but in the second case the outlines are blurred, the background has a dull greyish tint, while the relatively coarse grain of the paper distorts the lines more or less. Far be it from us to criticise the newspapers for their very laudable efforts in trying to put more life and interest in their columns by picturing events of interest or persons of note; but it must be admitted that in spite of the considerable improvements which have been accomplished along this line the pictures at times are anything but flattering. With an ordinary white paper which has been very heavily calendered, the results would be intermediate between those obtained with coated paper and with news print. Similarly, there is a very great difference in the results obtained with uncoated photographic paper and with a photographic paper which has been well coated with barium sulphate It should be noted that application of too light a coating, followed by heavy calendering, does not give the same effects, but results in a rougher surface; for calendering, either single or repeated, partly crushes the projecting portions of the surface, and the overlying coating cannot mask them completely and cannot be as brilliant in these spots as over neighboring depressions in the base which naturally took a heavier coating. It is therefore evident that the smoothness and brilliancy of the surface after calendering cannot be as great as when a normal coating has been applied sufficient to practically cover the grain of the base.

Moreover, photographic papers which are given a sensitized emulsion without being first coated always have a matt surface, which is easily understood after what we have just said.

Other Reasons

These are the three main reasons for the use of barium sulphate in the manufacture of photographic papers, but there are others, which we shall now enumerate:

(4) To improve and correct the color of the base, which is not always of a pure enough white. This is especially true of double-weight papers, which have a yellowish tinge requiring the addition of just enough blue in the blanc fixe to mask the original color of the base. Similarly, when the color of buff papers is a little too yellow or a little too reddish, this may be corrected in the coating;

(5) To give more body to the paper when the base is too soft. In this case care must be exercised lest the paper be made too stiff. The photographs must have a certain softness so that the coating will not crack when the curled prints are straightened out after drying. This softness depends on the nature and thickness of the coating.

(6) The barium sulphate separates the emulsion from the base which might have a restraining or accelerating effect during developing (owing to traces of chemicals remaining), this effect being thereby eliminated, or at least greatly reduced. Furthermore, as the base is always more or less porous, the intermediate coating ensures better keeping and slower deterioration of the emulsion;

(7) The emulsion adheres much better to the blanc fixe than to the base, so that even when it is desired to retain the natural grain of the paper a very light coating is given to make the sensitized layer adhere more firmly to the base.

Differences Between Two Grades

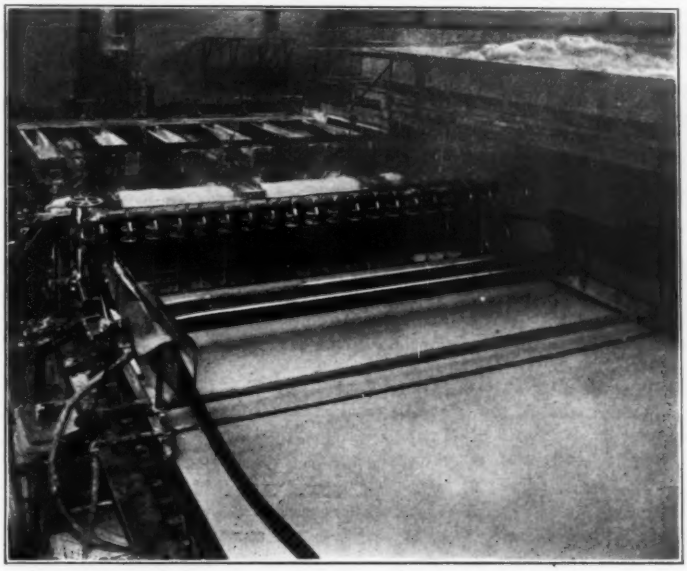
Since we have mentioned ordinary coated paper, and have seen that the same reasons led to the coating of papers as to the use of barium sulphate in the preparation of photographic papers, we shall now say a word of the chief differences between these two grades.

(1) First of all, photographic paper bases should always be of the very best quality, both as regards their composition and care in manufacture; while ordinary coating stock is of a lower quality, and is even at times quite a cheap grade. For instance, in the case of photo mounts, those which are coated are frequently the least pure, and the coating affords the photograph insufficient protection against the action of the numerous impurities contained in the low-grade pulps used for the base. The coating has vastly improved the appearance of the board, making it white, smooth and brilliant; but it has not acquired the qualities which its destination demands.

(2) There is also a difference in the thickness of the coating, which in each case depends on the surface of the base. As a rule ordinary papers are much more heavily coated than photographic

(*Continued on page* 40)

*Translated from *Science et Industrie*, vii. No. 108, 128-129, January 31, 1923, by A. Papineau-Couture.



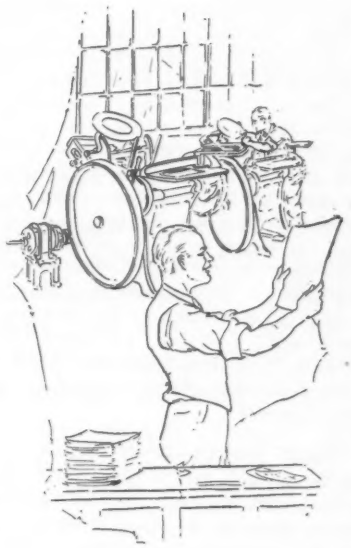
Your copy of an attractive booklet giving full particulars regarding the Voith High Pressure Stock Inlet is ready for you. Write for it today. Printers are demanding a paper with better printing qualities. This booklet tells how you can give it to them.

How *a* New York Mill Easily *Makes a* Sheet *of* Uniform Caliper

Realizing the importance of improving the printing qualities of their papers the management of a New York mill* have been able to decrease the variation in thickness of their product from 10% down to only 1%.

Moreover foam spots and lumps are eliminated and the entire surface of the wire is now being utilized for formation purposes.

The machine on which this is done is pictured above and the illustration shows the cause of this improvement, a Voith High Pressure Stock Inlet. Not only is a better paper made, but an increase in production of 10% resulted. You owe it to yourself to learn more about this Stock Inlet which makes possible better paper for less money.



VALLEY IRON WORKS CO.

APPLETON, WISCONSIN

New York Office: 350 Madison Avenue

*Name on request.

New York Trade Jottings

R. C. Tilden of the Sales Department of the International Paper Company is spending his vacation in Maine.

* * *

A petition in bankruptcy has been filed by the Paperbella Corporation of 511 West 42nd street, paper products. The liabilities are given as $2,339 and the assets as $308.

* * *

S. M. Lee, vice-president and general manager of the Calcasieu Manufacturing Company of Elizabeth, La., accompanied by J. F. Carter, general superintendent, visited friends in the trade in New York city the past week.

* * *

The La Boiteaux Company of 41 East 42nd street makes a double announcement that will prove of real interest to the trade. The announcement is of the re-association with the company of Eugene M. Strehl as a director and eastern manager and of the return to Cincinnati of the present eastern manager, John A. Barbara, to occupy an executive position in the main office.

* * *

Jack Galewitz has resigned as general manager of the Great Atlantic Paper Company, 149 Wooster street, converters and distributors of news print, wrappings and bond paper. Prior to starting the Great Atlantic Paper Company, Mr. Galewitz was connected with the New York Waste Paper Company, Inc., a subsidiary to the International Paper Company. Mr. Galewitz has just completed a trip through New England and Canadian mills and is now resting up at Montreal. He has no announcement to make at this time as to his future plans.

COATING PHOTOGRAPHIC PAPERS

(*Continued from page* 38)

papers, which is due mainly to the difference in the quality of the bases used. Moreover, coated papers are made of various colors, while photographic papers, with the exception of buff papers, are always white, and in some cases they are not even azured.

(3) Finally, the composition of the coating need not be the same in the two cases. With photographic papers, only the very best quality of materials should be used for coating on account of the possible effect of impurities on the emulsion; but with ordinary coated papers, on the other hand, such a high degree of purity is not necessary. Only the very best, so-called "photographic grade," of blanc fixe, which should be practically chemically pure, neutral and free from iron, is used for coating photographic paper base, and the quality of the gelatin should be on a par with that of the blanc fixe. A certain amount of impurities can be tolerated for coating ordinary grades, and the same holds true of the gelatin. Furthermore, in this case casein and China clay are frequently used, but these materials are never employed in the manufacture of photographic papers.

Finds Reforestation Active in N. Y. State

That the largest individual planters of forest trees in this country live in New York State is claimed by the New York State Forestry Association. following the return of questionnaires sent out to members of the Association last month. T. C. Luther, of Saratoga, holds the records, having set out in recent years more than 1,800,000 trees. Mr. Luther has also built an observation station for detection of forest fires, and has been a member of the Forestry Association since it was organized.

The complete returns from the forestry questionnaires show that more than 500 members of the Forestry Association have either reforested idle acres or applied the principles of forestry to natural grown stands. Several hundred members who owned no land reported on other work, such as fire prevention.

Obituary

Mark T. Robbins

[FROM OUR REGULAR CORRESPONDENT.]

LEE, Mass., August 5, 1924.—Mark T. Robbins, 62, died Sunday night at his home after a long illness. He was born in Wethersfield, Conn., and came to Lee in 1892. He became connected with the Eaton paper mills of which he later became a partner and the mill name was the Eaton, May & Robbins Company. After the sale of the company mills a few years ago, Mr. Robbins became manager of the South Lee mill of the American Writing Paper Company, holding this position for 19 years. In 1908 he became a director of the Lee National Bank and in 1909 succeeded Dr. C. V. Holcombe as its president. He was a trustee of the Lee Savings Bank, director of the Lee Public Library and a member of the First Congregational Church. He always took a live interest in public affairs.

Besides his wife he leaves a son, Edward H. of Pittsfield; a daughter, Mrs. Hunting C. Worth of Bronxville, N. Y.; two sisters, Mrs. John Chafe of Youngstown, Ohio, and Mrs. Fay von Zwilling of Poland, and one brother, James D., associate editor on the New York *World*. The funeral was held this afternoon at 4. Rev. William H. Mousley of the First Congregational Church officiated and burial was in Fairmount cemetery.

Box Board Meeting at New York Postponed

[FROM OUR REGULAR CORRESPONDENT.]

CHICAGO, August 4, 1924.—The meeting of the Box Board Association scheduled for August 13, New York City, has been postponed to some time early in September, not later than the 10th. The exact date will have to be determined in conjunction with Secretary of Labor James J. Davis, as the Department of Labor will be represented at that time, instead of on August 13.

Commissioner of Labor Statistics Ethelbert Stewart has been the unfortunate victim of an automobile accident and would be unable to attend on the date originally set.

There will be discussed at that time the accomplishments of the purposes of the conference of May 2, called by the Secretary of Labor and participated in by the entire Box Board Industry.

The exact date of the meeting will be announced later.

Advance Paper Co. Incorporates

[FROM OUR REGULAR CORRESPONDENT.]

BRATTLEBORO, Vt., August 4, 1924.—Articles of association have been filed with the secretary of state by the Advance Bag and Paper Corporation of Texas, with principal office located in Brattleboro. It is a branch of the Advance Bag and Paper corporation. The new corporation is to have a capital stock of $25,000 to be divided into 250 shares with a par value of $100 each. The incorporators are Robert L. Fitts, Gertrude Moore and E. Leonard Pearson, all of Brattleboro. The concern is being organized for the purpose, among other things of carrying on the business of buying and selling and dealing in, wholesale or retail; merchandise, goods, wares of every description; also to manufacture, buy and sell, pulp, paper bags, boxes and other paper products.

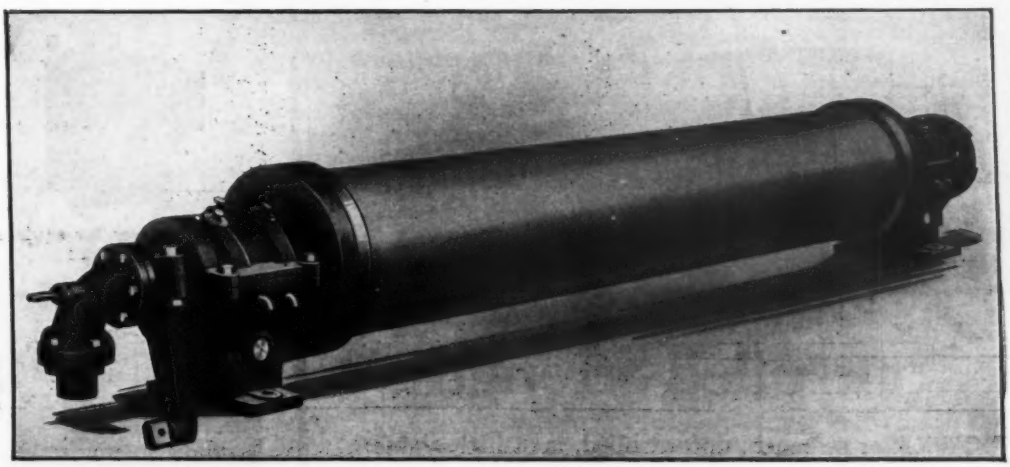
Hammermill Agents to Meet at Erie

[FROM OUR REGULAR CORRESPONDENT]

ERIE, Pa., August 4, 1924.—The agents of the Hammermill Paper Company will hold their annual meeting during the latter part of the week of August 25 at the Kah Kwa Club here. Some changes from the program of recent years have been made and it is expected that the convention will be the most successful one ever held. Business sessions will be held Thursday and Friday mornings, August 28 and 29 and golf and other recreations have been scheduled for the afternoons of these days.

DOWNINGTOWN

No Wear on Packings



Patents applied for

Kilberry SUCTION ROLL

Points of Superiority

Common-sense bearings about one-half diameter of shell. Infallible alignment of suction box to shell, no adjustments required. No wear on packings, therefore no replacements required. Direct jaw clutch connection to driving shaft, no gears. Less power to drive roll.

Mail Coupon for full description and prices

COUPON

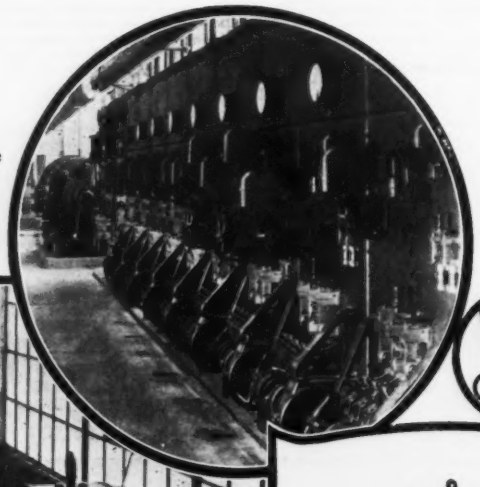
Downingtown Mfg. Co., (Green St. Plant)
East Downingtown, Pa.

( ) Send information on Kilberry Suction Roll.
( ) Send your complete catalog of Paper Mill Machinery.
(Check item desired, no obligation.)

Company .....

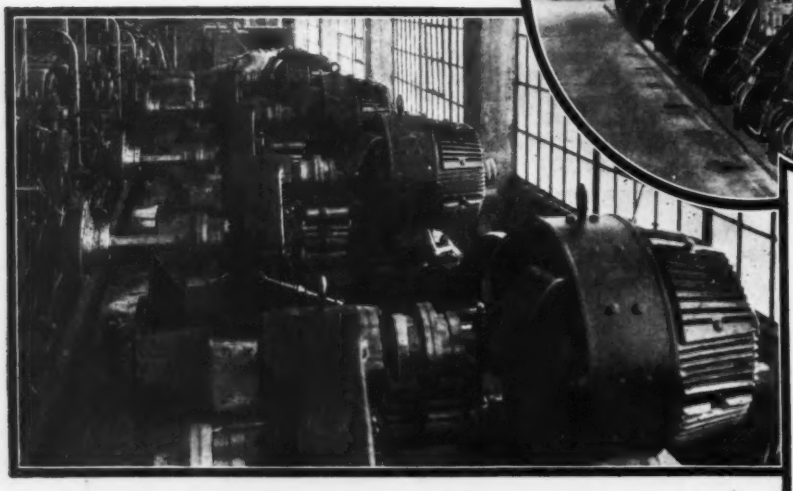
Personal Name .....Title .....

Address .....



Installation of sectional drive control board

Installation of Westinghouse sectional paper machine drive



Controlled Strength

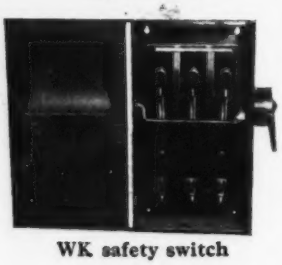
POWER or strength, uncontrolled, is of little value; but that same power, well directed, can be made highly useful. Control of power, then, plays an important part in the great industries of today.

For every different motor application, there is a Westinghouse control that is exactly fitted to its work of power direction—a control that is the result of careful study of working requirements—a control that is as unfailing in its duty as Westinghouse motors are known to be.

Westinghouse engineers know the problems of applying electric drive and control to the paper industry. Let them assist you in the selection of the proper electrical equipment for your mill.

Westinghouse Electric & Manufacturing Company
East Pittsburgh Pennsylvania
Sales Offices in All Principal Cities of
the United States & Foreign Countries

The 816 starter for squirrel cage motors



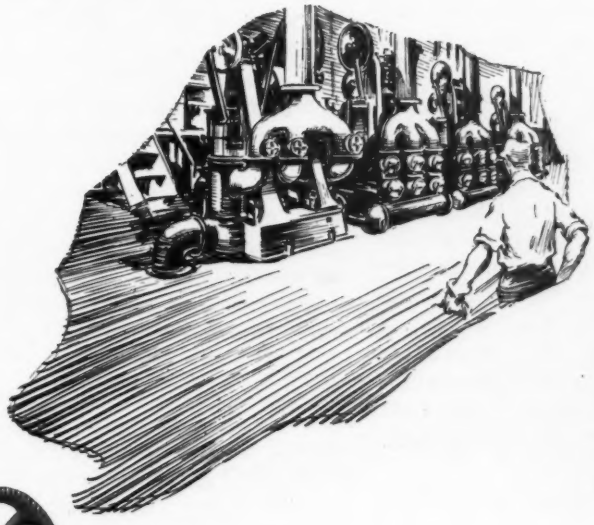
WK safety switch

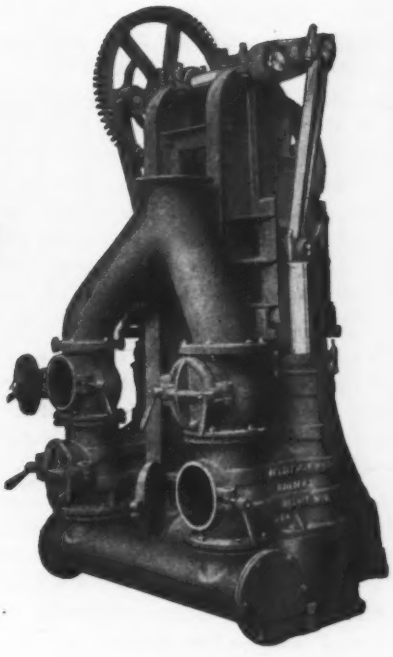
Type AF auto starter for squirrel cage motors

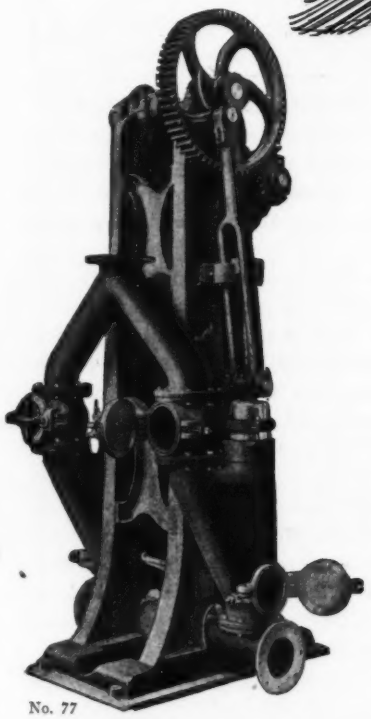
Type S drum controller for wound rotor motors

Westinghouse

The Efficiency Pump for Paper Mills







No. 77

BELOIT pumps are called "heavy duty" pumps because they are sturdy and strong. They are built for continuous 24-hour service and are gluttons for hard, steady work. They are regarded as the present-day *efficiency* pump for paper mills.

On our triplex pumps you will find forged steel crank shafts instead of cast steel. Our locomotive type connecting rod (regular equipment on our heavy-duty pumps) takes up the wear on crank and wrist pins while pump is in operation. The self-aligning feature prevents undue strain on cranks or frames.

If ever a part does become broken or worn out after years of hard usage, their construction is so handy that the repair can be effected easily and quickly, without the necessity of buying a considerable portion of a new pump.

Thousands of experienced board makers the world over know that Beloit pumps "deliver the goods."

It will pay you to turn first to BELOIT.

Beloit Iron Works **Beloit, Wis., U.S.A.**

Established **Since 1858**

Editorial

Vol. LXXIX New York, August 7, 1924 No. 6
HENRY J. BERGER, Editor

PULPWOOD, PULP AND PAPER

It very frequently happens that facts are not very pleasant reading. This is well exemplified in Department Bulletin No. 1241, of the U. S. Department of Agriculture, which has just been issued, dealing with the present and future pulpwood requirements of the paper industry in the United States.

Those of our readers who do not enjoy the truth when it hurts should not read the pamphlet. Business men, however, are usually not afraid to face facts, however disconcerting, when they are presented in clear, concise form. They may not agree with the premises or the conclusions of the argument here presented, but it would be difficult, if not impossible, to dispute the facts.

The bulletin is a study prepared by Mr. Earle H. Clapp, Assistant Forester, and Mr. Charles W. Boyce, Forest Examiner, U. S. Forest Service, in co-operation with the American Pulp and Paper Association and the Committee on the Perpetuation of the Pulp and Paper Industry in the United States. Both of the authors are well known to the industry and is a masterly analysis and correlation of government figures from the Bureau of Census, Forest Service, and Department of Commerce.

If the threatened embargo on the export of pulpwood by Canada, which has apparently been deferred, did nothing more than stimulate the United States paper industry and the government to make this careful analysis of the data at hand as to the past and present condition of papermaking raw material resources, it will have been a good thing for this country.

The report cuts both ways as is shows on the one hand how the paper industry is dependent to the extent of 51 per cent of its raw materials on Canada and Europe, while on the other hand, the consumers of such an important grade as news print are also dependent on Canada for 42 per cent of their present demand. While mention is made of the embargo on pulpwood from Crownlands in Quebec in May, 1910, followed by similar action on the part of other provinces, nothing is said of the United States government having placed wood pulp and news print on the free list in 1911. The effect of the latter can be seen in the increase in imports of print paper from 2 per cent of the United States consumption in 1899 to 37 per cent in 1922. In the same period the percentage of the news print consumption of United States made from domestic pulpwood dropped from 83 per cent to 34 per cent; consequently in this grade of paper, which is entirely wood and which has shown the highest rate of increase in consumption, the United States is becoming increasingly dependent on Canada for its supply. It is to be expected that as soon as it is realized where the control of the market lies a value will be placed on the primary raw material more commensurate with the cost of production than is now the case.

The suggested solutions of the problem of future pulpwood supply in the United States are:

1. Improvements in pulping processes so as to make a greater variety of woods available.

2. The manufacture of sulphate pulp chiefly from pine or larch, instead of from spruce, fir and hemlock, and the bleaching of sulphate pulp so that it may be substituted for bleached sulphite.

3. Reduction of waste in pulping processes and greater use of waste paper.

4. Coupling of saw and pulp mill operations with consequent fuller utilization of timber stands as is done in Sweden.

5. Methods of forest management, public and private, which will insure continuous production of pulpwood species on lands adapted thereto.

Besides these solutions which are offered for the impending raw material shortage, another, and perhaps more logical and probable one, is that of a reduction in the per capita consumption of paper, particularly of those grades that draw most heavily on the forest, such as news print and wrapping paper. With the inevitable increase in the cost of pulpwood and paper, with a realization of the depletion of the forest resources both in the United States and Canada, it is entirely illogical to expect the present consumption of paper to continue, much less to go on increasing at its present rate.

In some ways it is proper to feel pride in the fact that in 1920 we used 56 per cent of the world's paper, but in other respects, however, that are apparent to all it is evidence of sheer prodigality and waste.

It is understood that wide distribution will be given to the report, and it is to be hoped that it will be carefully studied. Otherwise its publication would fall into the category of much of the printed periodicals including newspapers, which serve merely to change beautiful trees into waste paper, swelling the per capita consumption figure.

SAVING BY STANDARD INVOICE FORMS

A potential saving of millions of dollars a year is forecast as a result of a survey made by W. L. Chandler, Secretary of the National Association of Purchasing Agents, Woolworth Building, New York. The survey covered thirty-five business corporations of average size.

Each of these corporations was asked to estimate what, in the opinion of its officers, might be saved in purchasing and accounting departments provided all invoices received by the corporation were on the National Standard Invoice Form. The estimated economies varied in the thirty-five cases but the total estimated savings amounted to $21,700, making an average of $620 for each of the thirty-five concerns. "If the 25,000 concerns of corresponding size scattered throughout the United States, Canada and Mexico were to receive corresponding benefits from the use of the National Standard Invoice Form," said Mr. Chandler in an interview, "this annual saving would total up in the millions. The theoretical figures would bring this amount to fifteen and a half millions. This figure is so large that a discount for conservatism would still leave potential savings running into the millions."

This National Standard Invoice Form was prepared by the National Association of Purchasing Agents, Division of Purchases and Stores of the American Railway Association, American Railway Accounting Officers' Association and National Association of Cost Accountants. In arriving at the National Standard Invoice Form three national conferences were called by the National Association of Purchasing Agents. The first one in Philadelphia in 1919 was held to study an exhibit which had been prepared by the Standardization

Committee of the National Association of Purchasing Agents of which Mr. Chandler was then chairman. As a result of an all-day conference of representatives of a number of national trade and professional associations, a tentative size and form were adopted for criticism. One year later another national conference was called at Chicago to consider the criticisms and suggestions which had been received by the committee during the year. Another tentative form was then adopted and the following year another national conference was held at Philadelphia to consider the changes proposed for the second tentative form. At this conference the present form was adopted and has since been fully endorsed by the four bodies whose committees co-operated in its preparation.

"In the estimated savings in purchasing and accounting departments raised in the survey mentioned," continued Mr. Chandler, "no account has been taken of the potential savings in sales and order departments by the use of standardized invoice forms which would result if the adoption of this form were to do away with the use of what is generally known as 'buyers' invoice forms.' These latter forms are those used by certain corporations in connection with their purchases. This practice, which is very distasteful to the selling organizations, is such that with every purchase order the customer's private invoice forms are enclosed and the vendor must render his invoices on those private forms. The great difficulty in the use of those forms comes from the fact that the customer's name is printed on the forms and the name of the vendor rendering the invoice must be typewritten thereon. Consequently any carbon copy retained by the vendor shows his own name but not that of his customer, and the carbon copy is of little value to the vendor as being an exact reproduction of the invoice he has rendered. Further than that, the carbon copy, having no trace of the printed portions of the invoice forms, leaves a lot of figures such as order numbers, requisition numbers, etc., without anything to indicate what they represent so that the vendor is not able to distinguish his own order number from that of his customer. Again, the carbon copy made in this way does not tie into the regular accounting system of the vendor so he is obliged, for his own benefit, to bill everything on his own forms, thus duplicating the billing operations. After the billing operation is completed a careful check must be made to see that the billing retained in the vendor's files agrees exactly with that sent out on the customer's private invoice form. All of this is an economic loss which would be obviated if all invoices were rendered on the National Standard Invoice Form."

The National Association of Purchasing Agents as well as the other bodies which have endorsed this invoice form is making a particular effort to secure the more general adoption of the form which must be accomplished before the benefits can be derived. This organization reported an increasing interest in the form and daily inquiries for information at its office in the Woolworth Building, New York.

"NEAR PAPER MONOPOLY"

The following editorial comment on the news print situation under the caption of "Near Paper Monopoly" was made in a recent issue of the *News-Courier* of Saginaw, Mich.:

In fifteen years Canada will furnish four-fifths of the news print paper used by American newspapers. So estimates Lord Rothermere, the foremost British publisher. Canada already supplies half of our newsprint.

This would be a dangerous near monopoly in the hands of any but the most friendly of neighbor nations. A monopoly in news print would be more powerful than almost any form of political power—if it were not that the thing that counts is the message ink carries, rather than the paper itself.

"The Declaration of Independence would fill only part of a newspaper column. But look at its power."

Pulp Imports from Norway Comparatively Small

WASHINGTON, D. C., July 31, 1924.

Editor PAPER TRADE JOURNAL:

On May 22 last the PAPER TRADE JOURNAL contained an article to the effect that the Rumford Pulp Corporation, according to a statement from the President of the said corporation, had gone into receivership on account of foreign competition, mainly Norwegian and Swedish, and due to the lack of protective duties. In the last paragraph the following statement is made:

"It is also said that the two foreign countries are devastating their countries in order quickly to raise money and take advantage of the American and Canadian dollar which brings about three times the normal value in Europe."

The Norwegian Wood Pulp Association and the Norwegian Cellulose Association are unanimous in emphatically denying the above allegations. Whatever may be the reason for the failure of the Rumford Pulp Corporation and other pulp manufacturers, the importations from Norway are, comparatively speaking, so small that they do not justify allegations of this nature. If we for instance take the total importation into the United States in the last five years of chemical wood pulp, which presumably would be the the article complained of, compared with the importations from Norway, we obtain the following figures:

	1919 Tons	1920 Tons	1921 Tons	1922 Tons	1923 Tons
Total imports	387,287	601,105	452,104	994,328	1,076,076
From Norway	11,168	20,425	14,769	86,338	87,536
Per cent of total.....	2.8	3.4	3.2	8.7	8.1

The prices quoted by the Norwegian manufacturers to purchasers in the United States have not been lower than prices quoted to customers in other countries.

The accusation that Norway is devastating her forests in order to raise money quickly and take advantage of the present value of the American and Canadian dollar is not only entirely unfounded by facts, but absurd. It is well known that, apart from the fact that this would be a suicidal policy, if permitted, Norway has very rigid laws on the subject of reforestation and these laws are strictly enforced. Consequently any devastation is out of the question. In this connection it might be of interest to recall in the minds of those who make these unfounded allegations that when the question of reforestation law was brought up recently in the United States, the excellent forest and reforestation policy of Norway and her neighboring countries was repeatedly mentioned.

Very truly yours,

ALEXIS LUNDH, Commercial Counselor.

Schroon River Paper Co. Elects Officers

WARRENSBURG, N. Y., August 4, 1924.—At the annual meeting of the Schroon River Pulp and Paper Company the following officers were elected: President, Louis E. Reoux; vice-president, Philip E. Rice; secretary, W. L. R. Durkee; superintendent, W. J. Quinlan; directors, L. E. Reoux, Philip E. Rice; W. L. R. Durkee, Albert E. Emerson, A. H. Reoux, William J. Quinlan and Harry A. Reoux.

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The Latest Development in The Coated Paper Industry

Casein
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Both Commercial and Iron Free
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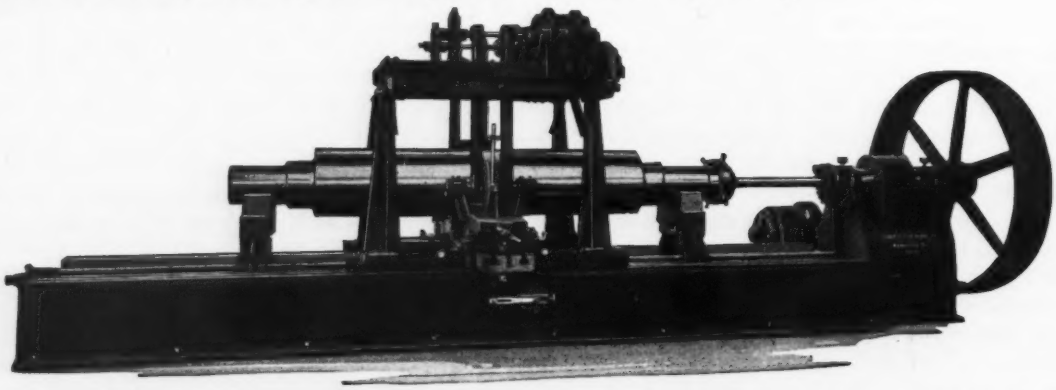

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Section of the

Technical Association of the Pulp and Paper Industry

AN ORGANIZATION FOR THE ENCOURAGEMENT OF ORIGINAL INVESTIGATION AND RESEARCH WORK IN MILL ENGINEERING AND THE CHEMISTRY OF PAPER, CELLULOSE AND PAPER-MAKING FIBERS GENERALLY; IT AIMS TO PROVIDE MEANS FOR THE INTERCHANGE OF IDEAS AMONG ITS MEMBERS IN ORDER THAT PROCESSES OF MANUFACTURE MAY BE MADE MORE EFFICIENT AND IMPROVED ALONG TECHNICAL LINES.

Conducted by W.G. MacNAUGHTON, Secretary

HOW THE UNITED STATES CAN MEET ITS PRESENT AND FUTURE PULPWOOD REQUIREMENTS

By Earle H. Clapp, Assistant Forester, and Charles W. Boyce, Forest Examiner, Forest Service

The following is an abstract of an extremely interesting bulletin just published by the United States Department of Agriculture on "How the United States Can Meet Its Present and Future Pulpwood Requirements." The report was prepared in co-operation with the American Paper and Pulp Association and the Committee on the Perpetuation of the Pulp and Paper Industry in the United States.

Reasons for Inquiry

Concern for future pulpwood supplies and their relationship to the entire national forest problem led the American Paper and Pulp Association to form a special "Committee on the perpetuation of the pulp and paper industry in the United States." The committee requested the Forest Service to make an investigation, the results of which are incorporated in this report.

For the past 30 years or more the United States has imported pulp wood from Canada. For some time the volume of these imports was small; but it grew rapidly, particularly during the decade following 1900. For the past 10 years, however, pulpwood imports have remained at substantially the same level. Fundamentally we have imported pulpwood because our own supplies of material tributary to the existing paper mills have been reduced, while our requirements for paper, pulp, and pulpwood have been expanding. The Canadian pulp and paper industry has shown a phenomenal development during the last decade, and for a number of years it has become increasingly evident that Canadian requirements will in time absorb the pulpwood which is now shipped to the United States. The fact that pulpwood imports have been practically at a standstill for an entire decade and may now be on the brink of a decline from purely economic causes, accentuates the problem of adequate future sources of raw material which demands attention from the American pulp and paper industry and from the American public. The problem demands attention regardless of the recent action of the Canadian Parliament in giving the governor in council authority to restrict pulpwood exports. It demands attention regardless of the recommendation which may be made by a Canadian commission now investigating the situation, or of the action which the Canadian Government finally takes. The Canadian situation, like the American, is the result of economic forces long operative and certain to continue, with important consequences for the pulp and paper industry in both countries, irrespective of their traffic in pulpwood.

Between 1869, the first year that wood pulp production was reported, and 1922 the manufacture of paper in the United States increased 18 times while its consumption increased more than 20 times. American paper mills, in other words, were unable during this period to keep pace with the acceleration in consumption; imports of paper increased nearly 80 times in value and the difference between production and consumption has now reached about 1 million tons. But at the same time that American paper production was falling behind consumption American pulp mills, supplied though they were with imported as well as domestic wood, fell rapidly behind the demand of the paper mills, so that pulp imports, only a little more than 25,000 tons in 1889, had increased more than 1¼ million tons in 1922. And finally, the pulp mills in turn have had to meet their growing volume of pulpwood requirements partly through pulpwood imports, which probably began as early as 1895, and since 1912 have ordinarily exceeded 1 million cords a year.

Stated in another way, our paper industry in 1922, manufactured more than 7 million tons of paper from domestic and foreign supplies, but we consumed 8 million tons. Our pulp industry manufactured 3½ million tons of pulp, in part from imported wood, but 5,847,000 tons were required for our total paper consumption. Finally, we cut from American forests 4½ million cords of wood, but the total consumed in the United States and elsewhere to meet our paper requirements was 9,148,000 cords of domestic and foreign wood. Only 88 per cent of the paper consumed in 1922, was manufactureed in the United States; only 60 per cent of the pulp used in making the paper consumed was a home product; and only 49 per cent of the wood used in meeting paper requirements came from our own forests. These figures indicate specifically the extent to which American paper mills, pulp mills, and forests, respectively, now fall short of meeting national needs for paper.

Hardly less important than the extent of our present imports from foreign sources is the rate at which they are increasing. As recently as 1899, little more than two decades ago, American forests furnished 83 per cent of the wood for our paper. Imports have since been increasing at the rate of about 192,000 cords a year. The outstanding fact today is that more than half of the forest materials for all the paper used in the United States comes from outside our boundaries.

U. S. Paper Production

The United States in 1920 manufactured more than half of the world's paper and consumed 98 per cent of that manufactured. To supplement domestic material we purchased from Canada 31 per cent of her pulpwood cut, and nearly 32 per cent of her pulp output,

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about one-tenth of Sweden's pulp production, and smaller amounts of pulp from a number of other countries. We purchased also large amounts of foreign paper, the chief item being nearly 78 per cent of Canada's newsprint output. Altogether in 1920 we used 56 per cent of the world's paper. The United States constitutes to-day, and has constituted for 50 years, far and away the world's greatest paper market.

Present Timber Resources, Drain, and Replacement

Less than a third of the original timber stand of the United States remains. Of saw timber, the form in which countrywide estimates have hitherto been considered, we now have approximately 2,200 billion feet, board measure, of virgin and second growth in the United States proper, and an additional 80 billion feet in southern and southeastern Alaska. Including material below saw-timber size we have more than 3,500 million cords of species now used for pulp and paper, about 55 per cent of the total stand. A much larger proportion of the species and hence of the volume of Alaskan timber is suitable for pulp, and the total is only a little short of 170 million cords.

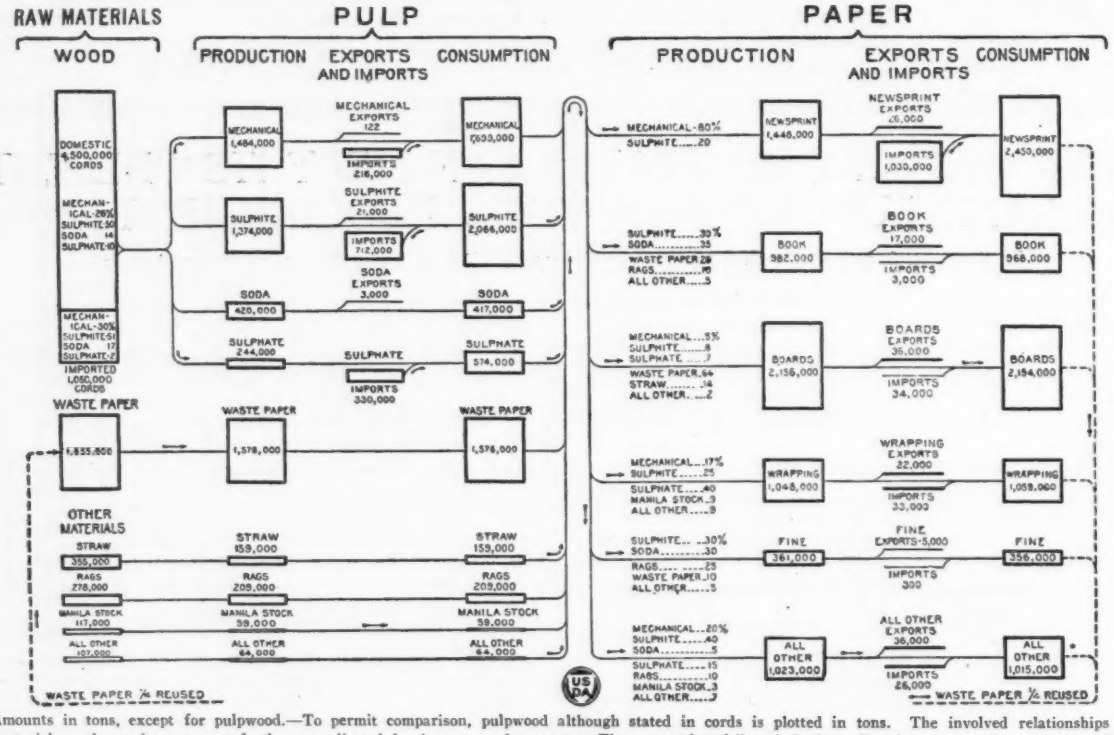
Of the total stand in the United States about 760 million cords, including jack pine, is suitable for sulphite and mechanical pulp, for which it will be remembered 78 per cent of the wood pulp utilized is now required. Eight hundred fifty million cords are suitable for soda pulp, which now absorbs 8 per cent of our requirements, and the very much larger total of 1,920 million cords is suitable for sulphate, which takes 14 per cent of the total pulpwood needed.

These totals make the annual pulpwood cut from American forests of 4½ million cords, the consumption of pulpwood by American mills of aproximately 1 million cords additional; and even the total amount of pulpwood required for all the paper we consume, look exceedingy small. The remaining timber must, however, meet the requirements for a large number of other important forest products, such as lumber, fuel wood, ties, etc. The annual pulpwood cut from American forests, although second to no product in economic importance, is now less than 2.5 per cent of the total volume cut for all purposes or destroyed. To supply all of our present requirements and to be entirely independent in pulpwood, pulp, and paper would require less than 5 per cent of the amount of timber now annually cut or destroyed.

The total annual drain upon American forests exclusive of Alaska falls only a little short of 25 billion cubic feet. While this approximates one-thirtieth of the total visible wood supply of the United States, annual replacement through new growth reaches only one-fourth of the drain, or 6 billion cubic feet. Our timber resource is therefore becoming less by nearly 19 billion cubic feet, or 160 million cords a year.

The general outlook might not be so serious if the cut and destruction were confined mainly to timber of the larger sizes. Unfortunately, however, in the timber below saw-timber size drain exceeds renewal by about three times, so that the possibility of replacing the larger-sized timber is rapidly being reduced. The drain upon the large-sized material suitable for saw timber is still more excessive, reaching five and one-half times the annual growth.

No other interpretation of these and other known facts is possible than a serious future timber shortage, already in fact beginning for many important products. Data are not available for any very satisfactory comparison of stand, current drain, and growth for all the pulpwood species taken together, but there is little reason to hope that the situation is much better than for the timber stand as a whole. While a timber shortage will in general be felt first in the high-grade products, such as lumber, an inadequate supply of timber means of course sharper competition among forest industries for the remaining material and higher prices.



Amounts in tons, except for pulpwood.—To permit comparison, pulpwood although stated in cords is plotted in tons. The involved relationships between raw materials, pulp, and paper are further complicated by imports and exports. The rectangles followed horizontally show, with the connecting lines, the course from raw material to final product, while followed vertically the rectangles show the comparative volume of various raw, intermediate, and final products. The data on pulpwood and its products are for 1922, and that for other materials and their products are for the closely similar year of 1919.

Outstanding Findings

The outstanding findings of this inquiry into the pulp and paper situation are that:

The question of adequate present and future pulpwood supplies is an important phase of the national timber supply problem, which is one of the most important problems now demanding solution in the United States.

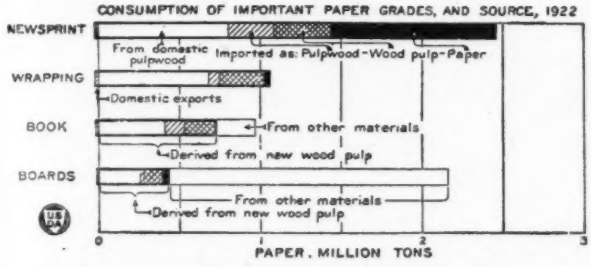
There are outstanding reasons for creating a permanent domestic pulp and paper industry which can meet our entire needs, founded on home-grown timber. In the long run this will insure cheaper products to the ultimate consumer than can be obtained from foreign countries. The high productive capacity of our forest soils, and abundant supplies of other materials than wood essential in pulp and paper manufacture, should make cheaper products entirely feasible.

American paper requirements have nearly quadrupled since 1899 and now exceed 8 million tons a year. They constituted 56 per cent of the world's paper consumption in 1920. On per capita consumption is double that of any other country.

The enormous growth of paper production and consumption during the past half century has been based upon wood, of which the amount now used exceeds several times that of all other materials together. The paper now consumed in the United States requires 9,148,000 cords of wood. All available information indicates that the supremacy of wood as the chief pulp material will continue.

American forests now supply only 49 per cent of the pulp wood required in our paper consumption, whereas as recently as 1899 they supplied 83 per cent. The increase in imports since 1910 has been almost entirely in pulp and paper.

Pulpwood imports, although of great importance, now constitute only 19 per cent of the pulpwood consumed in American mills and only 11 per cent of that required for all the paper we consume. Pa-



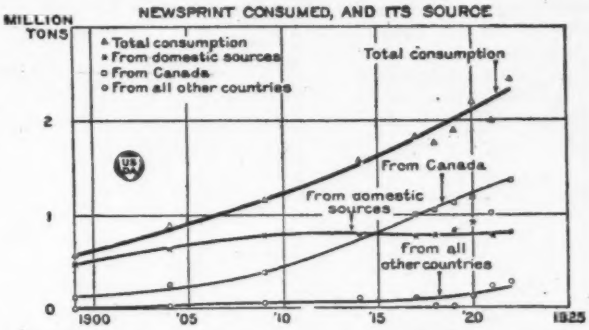
Only about one-third of the pulpwood required for news print paper is obtained from domestic sources. While imports of pulp and pulpwood are large, paper is by far the largest factor in newsprint imports. Two-thirds of the wrapping paper consumed is derived from domestic pulpwood, and pulp is the largest factor in the imports. Pulp is the largest factor in imports for both boards and book paper.

per and pulp imports constitute an equivalent of 42 per cent of the pulpwood needed for our entire paper requirements. About half of the pulpwood imports are used for sulphite, three-tenths for mechanical, and the remainder for soda pulps. News print, book, and wrapping papers absorb one-third, one-fourth, and one-eighth, respectively.

American forests supply less than half of the pulpwood needed for all the sulphite, mechanical, and sulphate pulp we use, but four-fifths of that needed for soda pulp. Of what is needed for news print paper they furnish only one-third, of that for wrapping paper two-thirds, and of that for boards and book paper slightly more than half.

Canada furnishes the pulpwood for 37 per cent of our entire paper requirements, and about equally in the form of pulpwood, pulp, and paper. Thirty-seven per cent of our entire news print requirements are imported from Canada as paper—more than the amount of news print manufactured from domestic wood. Countries other than Canada supply 17 per cent of the pulpwood needed to meet our entire paper requirements, but four-fifths of this material is imported in pulp form.

Seventy-eight per cent of the pulp wood now required consists of spruce, fir, and hemlock for sulphite and mechanical pulp, 14 per cent is pine for sulphate pulp, and the remainder is hardwoods for soda pulp. In part out of this concentration in requirements has come a concentration of the pulp and paper industry in the spruce, fir, and hemlock forests of the Middle Atlantic, New England, and Lake States. The inability of the forests of these regions to meet the demands of the pulp mills has led to imports of Canadian pulpwood, 85 per cent spruce and the remainder aspen. The Middle Atlantic States use 73 per cent of the total imports and New York alone uses



The United States is more dependent upon outside sources for its news print than for any other grade of paper. Since 1904 Canadian imports in pulpwood, pulp, and paper have met nearly all increased American demands, until now we draw more heavily upon Canadian forests than our own.

57 per cent; 21 per cent is used in New England; and the rest goes to the Lake States.

The forests of practically every region in the United States are being cut much more rapidly than they are being replaced by growth, and in most regions the original timber supplies have been greatly reduced. The regions from which pulpwood supplies are now being chiefly secured fall within the latter class. This situation is the background of the problem of increasing the domestic pulpwood cut sufficiently to meet our requirements.

The Problem

The most urgent phase of the pulp and paper problem of the immediate future is to secure annually an additional 870,000 cords of spruce, hemlock,and balsam, and 180,000 cords of aspen pulpwood from our own forests, to offset pulpwood imports. Purely economic causes make this problem urgent, regardless of any other considerations or possible developments. Closely related to the pulpwood import problem, and only a little less urgent, is the growing shortage of pulp timber in nearly all of the Middle Atlantic, New England, and Lake States, which in itself must be faced and met in the near future. The distribution of pulpwood imports chiefly to the Middle Atlantic States, particularly New York, and in lesser amounts to New England and the Lake States, is in itself an indication of the present shortage of local timber supplies.

An important but less urgent phase of the problem is to secure from American forests the pulpwood required to offset present pulp and paper imports. Including the amounts indicated in the preceding paragraph, this would require a total increase in the spruce, fir-hemlock cut of about 3,916,000 cords annually, in the pine pulpwood cut of 773,000 cords, and in the cut of various hardwoods of 196,000 cords.

The third phase of the problem is to meet increasing future paper requirements from our own forests if possible. This, based upon the increase in requirements of the past decade or two, would necessitate a further increase in the spruce-fir-hemlock pulpwood cut of 237,000 cords a year, in the pine cut of 110,000, and in the hardwood cut of 23,000 cords. Upon the basis of possible paper consumption of 13½ million tons by approximately 1950, there would be required at that time, under present manufacturing practices, nearly 12 million cords a year of spruce, fir, and hemlock pulpwood, 2 million

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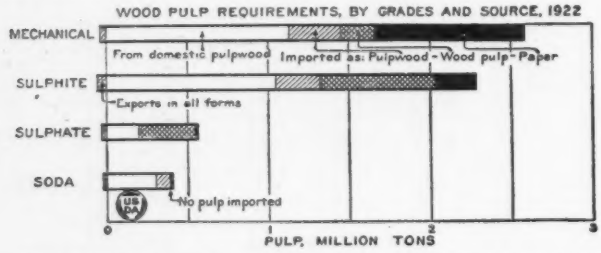
cord of pine, and a little over 1 million cords of hardwood, or a total of about 15 million cords.

The Solution—Essential Supplementary Measures

One possibility of making less difficult the solution of the general pulpwood supply problem is through new or modified pulping processes to increase the number of species available for pulp, and particularly for sulphite and mechanical pulp. If such an increase can include species which still remain in comparative abundance in the Middle Atlantic, New England, and Lake States, it will be of the first importance in relieving the present crisis.

Some relief can be secured in the spruce-fir-hemlock problem by shifting sulphate pulp production more largely or altogether to pine or larch. Bleached sulphate pulp can also be substituted to a much greater extent for bleached sulphite pulp in book and similar papers, with corresponding reduction in spruce, fir, and hemlock requirements. Similarly, unbleached sulphate can be substituted for the sulphite in boards and wrapping paper.

It should also be possible to reduce the pulping waste in the chemical processes, where now in general only about 45 percent of the



Domestic pulpwood supplies less than half the requirements for all of the mechanical, sulphite and sulphate pulp consumed. It furnishes 80 per cent of the requirements for soda pulp. The greater part of the mechanical pulp secured from foreign sources is imported as paper. The greater part of sulphite and sulphate imports are in pulp form, while those of soda are in pulpwood form.

original weight of the wood appears as pulp, and to reduce present pulpwood and pulp losses from decay. The reuse of waste paper has grown to 29 per cent of our total paper consumption; but, if need be, it can be made to furnish to new paper much more than its present contribution of 1,850,000 tons a year.

The use of woods and sawmill waste in pulp and paper making has actually decreased during the past 15 years, despite rapidly increasing pulpwood prices. About 20 million cords a year of the sawmill waste in species suitable for pulp can not be saved in lumber manufacture. Even with a great reduction in lumber cut and large allowance for the mills from which waste can not be secured, anything approaching the Swedish plan of integrated lumber and pulp industries would permit a vast increase in the utilization of waste over our 1922 total of less than 90,000 cords. Ultimately, with such an organization of industries and utilization as in Sweden, we could nearly double our 15 million cord pulpwood objective without reducing saw-timber production.

Growing Pulp Wood the Fundamental Solution

All of these measures have a distinct and important place in the solution of our pulp and paper problem, and full advantage must be taken of them. Through some of them immediate results can possibly be secured to relieve critical situations. The main reliance in ultimately and fully meeting our pulp-wood requirements must, however, be placed upon the growing of timber.

The Share of the Public and of the Industry in the Solution

Public interest in the pulp and paper problem carries public responsibility to aid in its solution. The supplies of pulpwood, lumber, and other forest products and the profitable utilization of our forest land constitute merely two phases of one of our most important national problems. The public is interested in securing permanent as contrasted with temporary industries. It is interested also in securing ample future supplies of paper at reasonable prices.

The public must redeem its responsibility by enlarging the area of publicly owned forest lands and devoting such lands in part to the growing of pulpwood. In co-operation with private owners it must extend and improve protection against fire, insects, and disease. It must solve the question of forest taxation, which in its present form helps to discourage efforts by private owners to grow their own timber supplies. It must encourage the development of satisfactory forms of timber insurance. It must aid in forest-products research into pulpwoods and pulping processes. To supplement present knowledge, it must, in co-operation with the pulp and paper industry, extend and enlarge the research of forest experiment stations in methods of reforestation, timber growing, and protection. It must also secure fuller data on the adjustment of needs and supplies. Although the general information available amply justifies action along the lines suggested, much more accurate and detailed data on timber supplies, growth, requirements, and available forest lands are essential for thoroughly satisfactory plans from the standpoint of either the pulp and paper industry or the public. For such data reliance can be placed only upon a timber survey, and in making this the public and the industry must co-operate.

The interest of the industry in planning and providing for itself ample supplies of raw materials to meet its own future requirements is still more immediate and direct than that of the public and carries corresponding responsibility for the solution of the pulp and paper problem.

The responsibility of the industry extends to co-operation in the lines indicated—forest protection, forest-products investigations, research at forest experiment stations, and a thoroughgoing timber survey. It includes systematic and widespread efforts to apply the results of research as rapidly as they become available. Further than all of these, the pulp and paper industry should, to safeguard its own interest, assume the leadership in timber growing on its own forest lands and those upon which it is dependent for pulpwood supplies. The alternative of scrapping pulp and paper plants or diverting them to other and less essential products affords no real choice.

Menace Newfoundland Paper Plant

ST. JOHN'S, Newfoundland, August 4, 1924.—Upon receipt of a message from Alfred Price, leader of 4,000 strikers, who had been employed on the Humbermouth power project, which said the men would destroy the plant of the Newfoundland Paper and Power Company unless the Premier personally investigated their demands, Prime Minister Monroe today prepared to go immediately to Cornerbrook, the seat of the trouble.

The strikers asked a 10 per cent wage increase. Price told the Premier that the men expected the Government to feed them after today,

At the request of the Government, Admiral Ferguson, now in port here on the flagship Calcutta of his squadron of the British fleet, has ordered a warship which has been at Prince Edward Island to proceed immediately to the scene of the strike.

M. D. Southworth Made Director

SPRINGFIELD, Mass., August 5, 1924.—Melvin D. Southworth, treasurer of the Southworth Company has been elected a member of the Board of Directors of the Springfield Fire and Marine Insurance Company to fill the vacancy caused by the death of his uncle the late Mase S. Southworth. Three generations of Southworths through a period of 73 years have served on the directorate of this company. His grandfather, Edward Southworth, was a member of the first Board of Directors and was chosen at a meeting on April 9, 1851. His associates on the board were Chester W. Chapin, Marvin Chapin, Edmund Freeman, Daniel L. Harris, Waitstill Hastings, Andrew Huntington, John L. King, Jacob B. Merrick and Albert Morgan.

A NEW BELT DRIVE

By William F. Schaphorst

What Archimedes said centuries ago about the lever is well known. He could just as truthfully have said, "Give me where to place my pulley and I will hold the earth with a tumbler of water." Fig. 1 shows how and why.

At the left is a belt simply slung over the pulley. A tumbler of water at one end of the belt weighing exactly one pound, will hold 4.81 pounds at the other end of the belt.

But increase the contact by giving the belt another turn as shown in the next sketch and the tumbler of water will hold 111.32 pounds. In other words, the load can be increased over 2,300 per cent. Give the belt still another turn and the load jumps to 2,525 pounds. One more turn and the tumbler of water will hold 59,608 pounds.

Why Ample Belt Wrap Should Be Provided

This explains why a belt drive should be provided with ample "belt wrap." The greater the wrap the better. Notice how rapidly the holding capacity increases with increase of wrap. The words "by leaps and bounds" are inadequate. Give the belt a few more turns and the figures become bewildering—beyond human comprehension.

Appreciating this important advantage of maximum belt wrap and aware of the many faults inherent in ordinary belt drives, the engineers of the Bird Machine Company, South Walpole, Mass., have recently developed a maximum wrap, short center drive, that is applicable to nearly all belt drives. It is called the "Pulmax Drive." This development is of particular value for perfecting transmission between pulleys that are unequal in size. The greater the difference in pulley size the greater the importance of this drive. Also, the nearer the pulleys to each other the greater the importance of the Pulmax Drive.

In other words, conditions that were at one time considered impossible, and that would have involved so-called poor design are now rendered entirely possible by use of the Pulmax Drive. In fact, higher efficiencies are now obtainable between a large and small

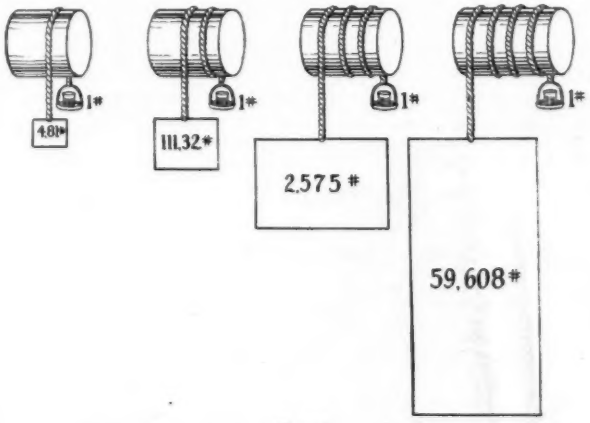


Fig. 1

pulley, placed close together, than are obtained from most ordinary drives that are regulated as ideal.

With the Pulmax Drive now available the user of belt drives need no longer worry about relative pulley sizes, position of pulleys, vertical or horizontal, belt slip, which is the driver and which the driven pulley, top or bottom, the pulling side, etc. The Pulmax Drive takes care of all such points.

Maximum pull per inch of width of belt without slip is what owners of power transmission machinery have been seeking during these many years that large belt drives have been in existence. It is now an accomplished fact.

"Maximum Pull"

"Maximum pull" are two words that have been often used. They are important words—so important in connection with this new drive that they have been combined into one word, Pulmax. Hence the name of the new drive—Pulmax Drive.

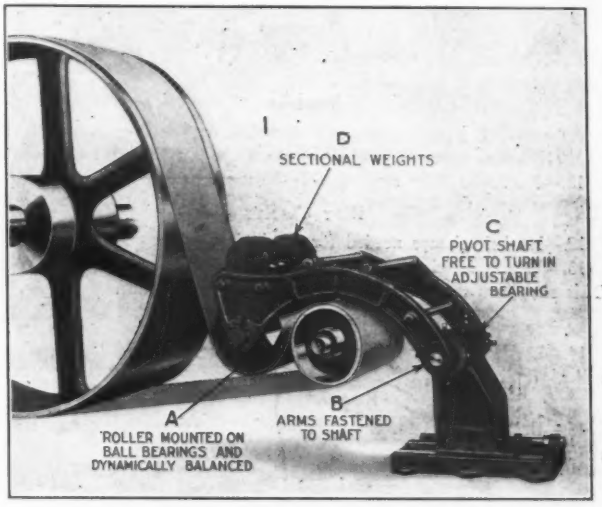


Fig. 2

A typical Pulmax Drive is shown in Fig. 2. It consists of a roller (A) assembled on an arm (B) which in turn is mounted on a shaft (C) supported by a suitable pedestal. The roller is held against the slack side of the belt by counterweight (D). Some types of Pulmax have the roller assembled on two arms mounted on a shaft supported either by one or two pedestals. The shaft for the roller is a revolving shaft. The shaft for the pedestal to which the arm is fastened is free to oscillate in a bearing in the head of the pedestal.

This drive has more than merely one, two, three, or even a dozen advantages over the ordinary open drive with pulleys far apart. below is a list of 66 of the principal advantages with a few explanatory remarks. To go into all of the advantages in detail, and into the theory and practice of the new drive would consume much space. For example, taking the matter of power saving alone: an excellent illustration of how the Pulmax Drive saves power is explained in Fig. 3. In the original installation when the motor switch was pulled the drive stopped at once. With the Pulmax Drive installed the drive runs for 1 minute and 20 seconds after the current is shut off. The original installation was constantly giving trouble because of belt adjustment and belt wear.

The diagram shows that the original pulley centers of 19 feet 3¼ inches were reduced to 4 feet 6 inches, resulting in a considerable saving in belt and a considerable saving in time required for adjusting the old belt. Except for an occasional oiling, the motor, Pulmax Drive and belt have not been touched since the installation was made in December, 1921.

Advantages

Similarly nearly all of the advantages listed below could be emphasized if space permitted. The list below is arranged alphabet-

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ically for the convenience of the reader so that he can quickly refer to any point in question.

ADAPTABILITY

1.—Pulleys may be located almost anywhere.

2.—The line through the center of the pulleys can be at any angle to the floor line. That is, it will operate at any angle.

3.—Belt can run in either direction.

4.—Driving units can be belted directly to driven units.

5.—Suitable for nearly all belt drives.

AUTOMATIC

6.—Is entirely mechanical and automatic in its performance and needs no attention aside from occasional oiling.

BEARINGS

7.—Minimum bearing friction.

8.—Lower cost of upkeep.

BELTING

9.—Less belt wear, hence longer belt life.

10.—Shorter belts are used.

11.—Narrower belts may possibly be used.

BELT CLAMPS

12.—No belt clamps needed for tensioning.

13.—Where splicing must be done belt clamps are not needed. This simplifies the splicing problem, saving much time.

BELT CONTACT

14.—Large belt contact is attained. Arcs of contact of 225 degrees and more are usual.

BELT DRESSINGS

15.—Belt dressings for the purpose of preventing slippage are not required.

BELT PLIABILITY

16.—A belt of any ordinary degree of pliability may be used.

BUILDNGS

17.—Important savings may be made in the cost of new construction, even in the cost of the buildings. Thus, in one instance short pulley centers saved the cost of constructing an addition to a crusher building.

CAPACITY

18.—Increases capacity of belts.

CENTRIFUGAL FORCE

19.—The usual effect of centrifugal force is nullified by the Pulmax roller.

COST

20.—The first cost is low.

21.—Reduces operating costs.

COUNTERSHAFTING

22.—The Pulmax Drive generally eliminates countershafting.

23.—No guess work in drive computations. Pressures, speeds, tensions—all necessary factors are known so that the completed installation can be scientifically and practically correct.

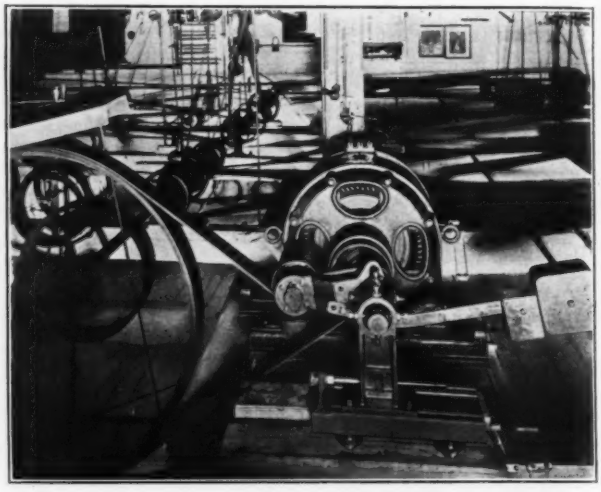


FIG. 3.

DESIGNING

EFFICIENCY

24.—Increases the efficiency of the drive.

25.—Efficient at light load or peak load.

26.—More efficient generators and motors can be used.

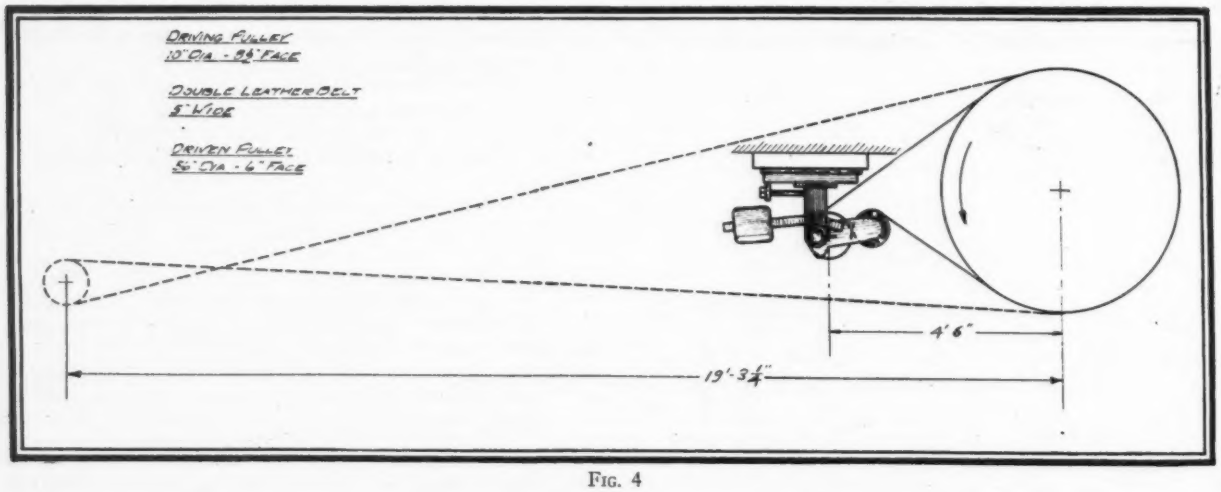


FIG. 4

ELASTICITY

27.—The Pulmax Drive being elastic absorbs shocks and vibration. It is an excellent drive for severe operating conditions.

ENDLESS BELTS

28.—Endless belts are easily placed on or removed from the pulleys. This avoids the harmful practice of running a large belt onto a pulley by first forcing one of the edges to catch and then running the belt on either by hand or by power. Such practice

causes the belt to stretch more on one side than on the other.

29.—Where overhung pulleys are used the belts can be made up endless by the belt manufacturer. Great accuracy as to belt length is not so necessary with the Pulmax Drive as with the old style of drive.

FLAPPING

30.—There is no flapping or waving of the belt, regardless of speed or load conditions.

FLOOR SPACE

31.—Saves floor space. Where direct connected steam engines are replaced by motors and Pulmax Drives, no more floor space is required than formerly.

GENERATORS AND MOTORS

32.—Reduces first cost of generators and motors because higher speeds are permissible. In some cases the entire cost of the Pulmax Drive has been covered by the lowered price of the generator or motor which could not have been used with the ordinary open drive.

HANGERS

33.—Intermediate hangers are eliminated.

HUMIDITY

34.—Atmospheric conditions, seasons, temperature, etc., make no difference.

INSTALLATION

35.—Easily installed. Any man of average mechanical ability can install it in a short time.

LACING

36. Frequent lacing to keep the belt tight is eliminated. This often amounts to an important saving.

LAGGING

37.—Leather and other kinds of lagging are unnecessary.

LIFE

38.—Belts and bearings are longer lived.

LUBRICANT

39.—Saves lubricant.

40.—No leakage of lubricant onto the belt.

MAINTENANCE

41.—Nothing to get out of order.

42.—The maintenance cost is very low.

OUTPUT

43.—Maximum output due to greater dependability and eliminated slip.

POWER

44.—Saves power.

45.—Any kind of power may be utilized—water power, gas engine, steam engine or electric.

PULLEYS

46.—Permits use of a greater pulley ratio. Thus, a 20 foot pulley may be driven by a 1 foot pulley and they may be placed close together.

47.—Steel, cast iron, wood or paper pulleys may be used.

48.—By utilizing higher speeds the first cost of pulleys may be appreciably reduced.

49.—The diameter of the small pulley is limited in smallness only by the thickness and kind of belt.

RIGIDITY

50.—It is not rigid.

ROLLER

51.—The roller which is very accurately made, is mounted on ball bearings.

SHAFTING

52.—Sometimes line shafting is saved.

SHUT DOWNS

53.—No cause for shut downs.

SIMPLICITY

54.—Nothing to adjust.

55.—Can be understood and operated by anybody. Nothing complex about it.

SLIP

56.—There is no actual slip.

57.—With slip eliminated the belt will not run off provided the pulleys are properly aligned.

SPEED

58.—Higher belt and pulley speeds can be used. Centrifugal force has no effect on the pulling ability of the Pulmax Drive.

SPRINGS

59.—No springs to adjust or get out of order.

STRETCH

60.—All belts stretch more or less. But stretch makes no difference to this drive. It automatically takes care of itself.

TENSION

61.—Minimum belt tension is constantly maintained.

62.—The initial tension on the slack side is a predetermined, fixed quantity. There is no guess work about it.

63.—After its determination the tension on the slack side is practically held at that point.

TOP PULL

64.—The old rule "make the lower side the pulling side" doesn't hold here. With Pulmax either the top or bottom may be the pulling side and with equally high efficiency.

VERTICAL

65.—Vertical drivers are as readily handled as horizontal.

VIBRATION

66.—There is no vibration because there is no waving or flapping of the belt.

Any information on this drive not herein included may be obtained from the manufacturers. They state that their engineers will be glad to freely furnish recommendations and estimates on drives of this nature to any responsible reader.

A Century of Gummed Paper Making

The McLaurin-Jones Company of Brookfield, Mass., is sending out to the trade an attractive little booklet which will prove of interest. It tells, in condensed form, the story of more than a century of uninterrupted progress in the making of gummed paper.

The booklet tells of the struggle of gummed paper to emerge from the specialty class to become recognized as an absolute necessity. The booklet is the first shot of a direct by mail and trade paper campaign to better acquaint the trade and the public with the uses and advantages of gummed paper. There are also shown in the booklet pictures of the mill and main office of the company at Brookfield, Mass., and the mills at Ware, Mass., and Newark, N. J. There is also printed a list of the McLaurin-Jones distributors.

Paper Mills in Norway Resume After Strike

WASHINGTON, D. C., August 6, 1924.—The Norwegian paper mills have now resumed operations after the strike which has lasted three months. Although considerable losses have been incurred, on the whole it is felt that this cessation in production will have a favorable influence on the market situation. The factories in Central Europe have raised their prices considerably so these are now on about the same level as the Scandinavian. Sales of chemical pulp and paper have been very satisfactory with the exception of the better grades of printing paper.

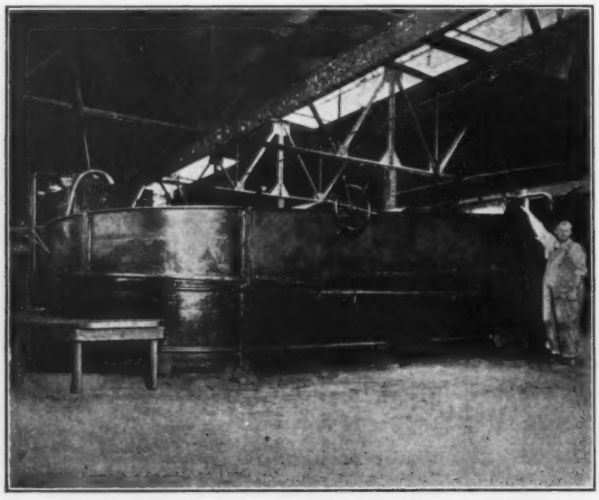
TECHNICAL SECTION, PAGE 54

BEATERS AT CHAMPION COATED PAPER COMPANY

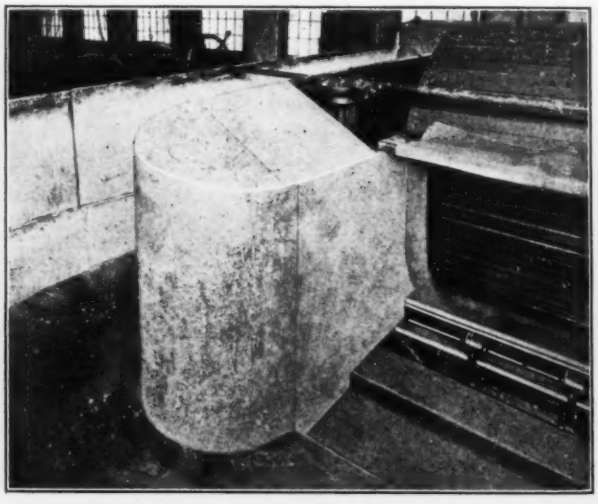
The illustrations show the design and construction of 37 machines installed in the mill of the Champion Coated Paper Company at Hamilton, Ohio. Each beater carries 64,000 pounds of stock, and is said to circulate at four times the rate of the ordinary beater. The tub is designed with a high backfall to the roll, and with a sloping bottom to secure the desired weight of the circulation.

As can be seen, there is a hollow midfeather, so that the roll shaft is but half the usual length. The beater roll is 61 inches in diameter, and weighs 10,000 pounds; and has the bars cast in a solid piece, so that no wood filling is required. The metal of the bars is a special steel alloy, which is very resistant to wear, and is practically unaffected by ordinary chemicals.

TOP VIEW



EXTERIOR VIEW



MIDFEATHER AND SAND TRAP

Changes Name to Norma-Hoffman Bearings Corp.

In order that it may realize the fullest value from its nationally advertised trade-marks—"Norma" and "Hoffmann"—as well as better to describe the nature of its business, the Norma Company of America, of Long Island City, N. Y., has changed its corporate name to Norma-Hoffmann Bearings Corporation,—with the same management, personnel and policies as heretofore. With this brief announcement is linked a story of progress achieved by consistently adhering to a standard.

Some twelve years ago, the "Norma" Ball Bearing was introduced in America as the first "precision" bearing ever offered the American trade—a bearing in which refinement of dimensions and finish was carried to a point never before attempted on a commercial scale. The sale of "Norma" Ball Bearings, therefore, involved also the sale of the idea of precision and its value in the industrial world. The new bearing found its first market in the automotive field, where its advantages in high-speed magnetos and lighting generators were quickly apparent. And in the years which have passed, the "Norma" precision ball bearing has become the accepted standard in automotive electrical apparatus built to a standard of enduring quality and sold on its record of performance.

The high-speed ability of the "Norma" ball bearing, proved in the automotive field, soon won for it recognition in other fields where speed and endurance must go hand in hand. And today these bearings, by virtue of this same precision and high quality, are used in ever-increasing quantities in fractional horse power motors, small generators, vacuum cleaners, electrical utility motors, measuring and recording instruments, grinders and drills and other small tools.

To the original "Norma" line of open or separable ball bearings was later added a line of "Norma" closed or non-separable bearings, made to the same "Norma" standards of precision and meeting the requirements of service where the latter, and more common type, is preferred.

The company, in developing the market for its ball bearings, early discovered the need for a precision roller bearing for heavy loads and hard service, which would be characterized by the same speed qualities and the same smooth, vibrationless operation which precision gave the "Norma" Ball Bearing. In order to meet this need, and after careful research, the Company acquired—some two years ago—the American rights in the patents, trade-marks and business of the Hoffmann Manufacturing Company, Ltd., of Chelms-

TECHNICAL SECTION, PAGE 55

ford, England—the largest and best known manufacturers of precision roller bearings in the world.

Since then, the Hoffmann" precision roller bearing has been widely adopted by American manufacturers in a varied range of mechanical applications. And its success has more than justified the conviction of "Norma" engineers that the American market needs a heavy-duty precision roller bearing and that the "Hoffmann" precision roller bearing meets the exacting requirements of this duty.

To provide for the constantly growing demand for "Norma" precision ball bearings and to permit the manufacture of "Hoffmann" precision roller bearings and "Hoffmann" Steel Rollers, the Company has just completed a new and modern plant on its 17 acres of property at Stamford, Conn., on the main line of the N. Y., N. H. & H. R. R.

Fiber Composition Standards

KALAMAZOO, Mich., August 3, 1924.

Secretary TECHNICAL ASSOCIATION:

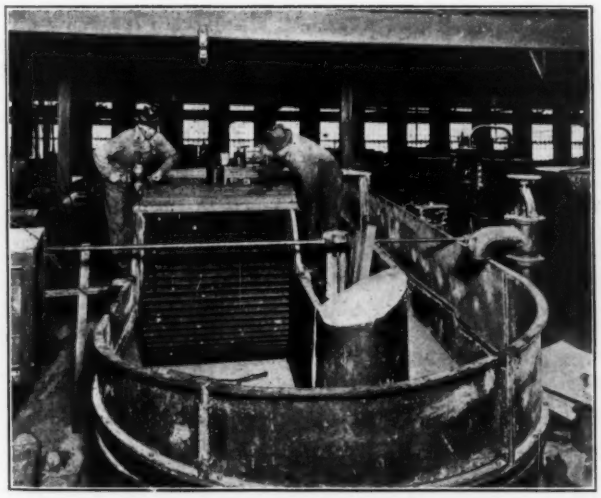
I have just received a copy of Technologic Paper of Bureau of Standards, No. 250, entitled "Pulp and Paper Fiber Composition Standards." This publication is the most complete of its kind that has ever been published, as it includes all of the important paper-making fibers, showing their characteristic markings, also their color characteristics with various stains.

It seems to me that you have already mentioned this publication, but I would suggest that you give it particular notice and advise all members of the Technical Association having anything to do with paper fibers, to secure a copy of this publication from the Superintendent of Documents, Government Printing Office, Washington, D. C. The price is 15 cents.

F. C. CLARK,
Hawthorne Paper Co.

Hill Spur Gear Speed Transformer

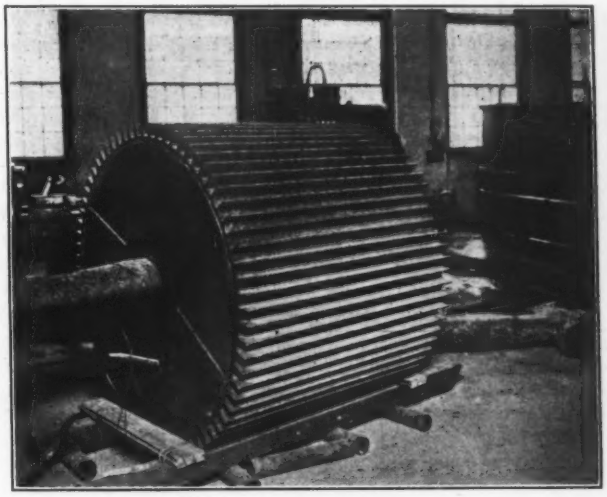
The Hill Clutch Machine and Foundry Company, Cleveland, Ohio has developed the "Industrial Type" Spur Gear Speed Transformer to meet the urgent need for an efficient and durable speed changing device for such service as is encounterd in connection with conveyor



COMPLETING A BEATER

drives, in pulp and paper mills, mines, smelters, stool plants, refineries, cement mills, brick plants, and in fact for all general industrial work where speed transformer units are operated under continuous or heavy service conditions; in other words, something substantial

The "Industrial Type" Speed Transformer consists of a nest of plain spur gears revolving in oil, changing the revolutions per minute of the input shaft to some desired revolutions per minute of the output shaft. The power transmitted is the same in both shafts. The efficiency is higher than any other form of gearing. The to meet the every day rough usage of mill operation.
gears all have 20° involute form cut teeth. The short length of these teeth combined with their powerful cross section insures great strength and reliability.



BEATING ROLL

Of great importance is the central housing located in the main frame. With this construction it is possible to offer the trade a gear transformer having both high and low speed shafts supported in double bronze bearings, insuring strength, rigidity and quiet operation. Ordinary thrust conditions also have been provided for.

Great accessibility is obtained as the cap and both ends can be quickly removed. The oiling arrangement is unique, being a con-

BEATER BARS IN A SOLID CASTING

tinuous and thorough splash system lubrication obtained by a metal disc on the high speed shaft which automatically lubricates every gear and bearing in the case. The entire unit is enclosed and is dust proof and leak proof.

Both high and low speed shafts are in identical axial alignment. The action is positive and both shafts revolve in the same direction.

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CURRENT PAPER TRADE LITERATURE

Abstracts of Articles and Notes of Papermaking Inventions Compiled by the Committee on Abstracts of Literature of the Technical Association of the Pulp and Paper Industry

CLARENCE J. WEST, Chairman

Lignone Derivatives; Cellulose; Sulphurous Acid; Tanning. C. F. Cross and A. Engelssad. Eng. pat. 202,016, May 8, 1922. Wood and similar lignified materials are resolved by treatment at 100 to 110° C., with a strong aqueous solution of sulphurous acid which is originally free from sulphuric acid. Preferably the process is carried out in a digester lined with acid-resistng cement, and the materals under treatment are rapidly agitated. The liquor containing the lignone derivatives may be evaporated to dryness, perferably under reduced pressure, or prepared in a concentrated form for transportation. These derivatives are stated to be different from those contained in sulphite waste liquor. Sulphurous acid for use in the process is rendered free from sulphuric acid by treatment with barium sulphite. The solution of lignone derivatives obtained as described above may be used in tanning.—A. P.-C.

Sizing of Paper. II. L. P. Zhereboff. *Bum. Prom.* (Russia) 2, No. 2-3, 187-203 (1923). The constants of a large number of samples of rosin are given. The limiting values are found to be: Acid number—146 to 179; Kötstörfers number—166 to 196; ether number—5 to 23. The usual method for determination of the "insoluble" of rosin in petroleum ether is erroneous because of the mutual solubility of rosin acids. The "insoluble" which is found in the free rosin of white size possesses no sizing powers. Powdered rosin left to the atmosphere is rapidly oxidized and is darkened in color and the oxidized rosin is useless for sizing. On the other hand, finely subdivided rosin in paper is preserved for many years. Petroleum ether solutions of rosin were exposed to white, blue and green rays of light with and without access of oxygen. Precipitates appeared as follows: In presence of oxygen and under action of white light on the first day, blue light on the third day, green light on the ninth day; in the absence of oxygen, after 3 days for blue light and after 12 days for green light. The precipitates were soluble in alcohol, but only slightly soluble in sulphuric ether. Through the action of the blue and green light there was a loss in the weight of the rosin taken of 7.7% and 9.5%, respectively; and a gain of 8.1% through the action of white light. The conclusions drawn from these experiments are: (1) About ⅔ of the compounds present in colophony undergo chemical changes even in the absence of oxygen. (2) The blue and green rays act equally in the absence of oxygen. (3) Oxygen increases the volocity of the action of green rays. (4) Oxygen causes violet and blue rays to produce greater changes in the composition of rosin. (5) The destructive action of sunlight on rosin is not limited to oxidization, but compounds are also formed which are insoluble in petroleum ether and have high ether numbers. Samples of rosin both powdered and coarse were kept in conditions of absolute darkness. After two years the finer powder gave much higher ether numbers than before, the coarse powder was changed only on the surface. The process of change was exothermal. After five years *decomposition* of rosin proceeds to the point of formation of the lower acids, acetic, formic, and perhaps propionic. Colophony when first obtained from rosin is a mixture of unstable chemical compounds in a condition of unstable chemical equilibrium. The change to a stable condition is accompanied by the formation of rosin acids insoluble in petroleum ether and possessing high ether numbers. The volocity of this change is dependent upon the size of the rosin particles. In solution, where the rosin is in a molecular state, the change is extremely rapid. For a fine powder exposed to sunlight several hours are required, and as the size of the particles increases the required time is likewise increased. All kinds of rosin contain more or less of these stable compounds, which have completed their life cycle, and which are already useless for paper sizing. Only these compounds which still retain their chemical activity, i. e., those which have not lost their double bonds, are useful for sizing. When making white size we separate out a large part of these useless compounds, but not all of them. Some of these are saponified, while on the other hand part of the active acids remain free and give to the "free rosin" slight sizing properties. Experiments have shown that when these substances are obtained in a purer condition they possess no sizing properties whatever. Filter papers sized with these filter as well as before sizing. The fact that paper does not become slack after many years suggests that the combination between rosin and the fibers is a chemical one. The presence of ketone groups in the fibers and of double bonds in the molecule of abietic acids strengthen this suggestion. At present much rosin is wasted in sizing, because of erroneous ideas about the sizing process. The author expects to produce writing papers sized with 0.4 to 0.5% rosin.—M. L. C.

Investigation of Cotton Stalk as Papermaking Material. M. N. Komarov. *Bumazhnaia Prom.* 2, No. 2-3, 016-210 (March-June 1923). A study of the stalk and seed of a bushy cotton plant of Asia (name not given) was made at the Russian Government Paper Testing Station. The stalk was a meter long. Its cross section showed three layers: bark, wood and pith. The inside of the bark consists of longbast fibers, while on the outside there is a thin skin. The pith is made up of thin walled parenchyma cells. The analysis of the air dry stalk is: bark, 32.7 per cent; wood, 65.1 per cent; pith, 2.2 per cent. Using the method of Cross and Bevan the layers were separately treated with 10 per cent HNO_3 at 60 to 70 deg. C., followed by a 2 per cent solution of H_2SO_4 and HNO_3, and the following percentages of cellulose were obtained: from the seed 36.4 per cent; bast, 32.9 per cent; wood, 40.4 per cent; root, 38.5 per cent. The measurements were: bast fibers, average length, 2.5 mm., average width, 0.02 mm.; wood fibers, length, 1.0 mm., width, 0.025 mm.; root fibers, length, 1.0 mm., width, 0.025 mm.; seed fibers, length, 0.5 mm., width, 0.02 mm. Microphotographs of the fibers are given.—M. L. C.

Manufacture of Groundwood Pulp Without Grinding. Anon. *Papierfabr.* 22, Tech.-Wiss. Teil, 38-42 (Feb. 3, 1924). An historical account of the various processes for making groundwood other than by the ordinary stone process. Brief descriptions are given of the Rasch-Kirchner, and as modified by Heusling, the Enge, and the Biffar methods.—J. L. P.

Safety Device for Groundwood Mills. *Indus. Della Carta,* Feb. 15, 1924. To prevent accidents the Employers' Association of Italy has published a design whereby wheels, saws and stones are enclosed in a casing or shield. In the groundwood mills spars are fed to the stones by means of a balanced table controlled by a motor and lever.—P. B.

Esparto. Jacques Crolard. *Science Et Indus.* 7, No. 108, 83-87 (Jan. 31, 1923). Description of the esparto growing region of northern Africa and of the process of manufacture of esparto pulp.—A. P.-C.

Could French Northern Africa Produce Wood Pulp? A. Malbot. *Papeterie* 45, 1205-1210 (Dec. 25, 1923); 46, 17-23 (Jan. 10, 1924). A discussion of the possibility of establishing eucalyptus plantations and mills for the production of eucalyptus groundwood and straw and esparto chemical pulps, from which the author concludes that the plan is entirely feasible.—A. P.-C.

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SOME PHASES OF GOVERNMENT IN BUSINESS*

By Hon. Herbert Hoover, Secretary of Commerce

Your Chamber has recently sumbitted to its members a number of recommendations upon Principles of Business Conduct in the form of a report of your Committee on Business Ethics. The very fact of issuing such a report is of interest. I wish to discuss the whole subject in its wider sense and in the relation of Government to business.

The advancement of science and our increasing population require constantly new standards of conduct and breed an increasing multitude of new rules and regulations. The basic principles laid down in the Ten Commandments and the Sermon on the Mount are as applicable today as when they were declared, but they require a host of subsidiary clauses. The ten ways to evil in the time of Moses have increased to ten thousand now.

A whole host of rules and regulations are necessary to maintain human rights with this amazing transformation into an industrial era. Ten people in a whole county, with a plow apiece, did not elbow each other very much. But when we put seven million people in a county with the tools of electricity, steam, 30-floor buildings, telephones, miscellaneous noises, street cars, railways, motors, stock exchanges, and what not, then we do jostle each other in a multitude of directions. Thereupon our lawmakers supply the demand by the ceaseless piling up of statutes in attempts to keep the traffic open; to assure fair dealing in the economic world; to eliminate its wastes; to prevent some kind of abuse or some kind of domination. Moreover, with increasing education our senses become more offended and our moral discriminations increased; for all of which we discover new things to remedy. In one of our States over 1,000 laws and ordinances have been added in the last eight months. It is also true that a large part of them will sleep peacefully in the statute book.

The question we need to consider is whether these rules and regulations are to be developed solely by Government or whether they can not be in some large part developed out of voluntary forces in the nation. In other words, can the abuses which give rise to Government in business be eliminated by the systematic and voluntary action of commerce and industry itself? This is indeed the thought behind the whole gamut of recent slogans "Less Government in Business," "Less Government Regulation," "A Square Deal," "The Elimination of Waste," "Better Business Ethics," and a dozen others.

National Character Not Built by Law

National character connot be built by law. It is the sum of the moral fibre of its individuals. When abuses which arise from our growing systems are cured by live individual conscience, by initiative in the creation of voluntary standards, then is the growth of moral perceptions fertilized in every individual character.

No one disputes the necessity for constantly new standards of conduct in relation to all these tools and inventions. Even our latest great invention—radio—has brought a host of new questions. No one disputes that much of these subsidiary additions to the Ten Commandments must be made by legislation. Our public utilities are wasteful and costly unless we give them a privilege more or less monopolistic. At once when we have business affected with monopoly we must have regulation by law. Much of even this phase might have been unnecessary had there been a higher degree of responsibility to the public, higher standards of business practice among those who dominated these agencies in years gone by.

There has been, however, a great extension of Government regulation and control beyond the field of public utilities into the fields of production and distribution of commodities and credit. When legislation penetrates the business world, it is because there is abuse somewhere. A great deal of this legislation is due rather to the inabiilty of business hitherto to so organize as to correct abuses than to any lack of desire to have it done. Sometimes the abuses are more apparent than real, but anything is a handle for demagoguery. In the main, however, the public act only when it has lost confidence in the ability or willingness of business to correct its own abuses.

Legislative Action Clumsy

Legislative action is always clumsy—it is incapable of adjustment to shifting needs. It often enough produces new economic currents more abusive than those intended to be cured. Government too often becomes the persecutor instead of the regulator.

The vast tide of these regulations that is sweeping onward can be stopped if it is possible to devise, out of the conscience and organization of business itself, those restraints which will cure abuse; that will eliminate waste; that will prevent unnecessary hardship in the working of our economic system; that will march without larger social understanding. Indeed it is vitally necessary that we stem this tide if we would preserve that initiative in men which builds up the character, intelligence, and progress in our people.

I am one of those who believe in the substratum of inherent honesty, the fine vein of service and kindliness in our citizenship. The vast volume of goods and services that daily flow through the land would cease instantly were it not for the instinctive dependence

* Address at Annual Meeting United States Chamber of Commerce, Cleveland, O., May 7, 1924.

of our people upon the moral responsibility of the men who labor in the shops and farms and the men who direct our production and distribution.

In these times of muddled thought it is sometimes worth repeating a truism. Industry and commerce are not based upon taking advantage of other persons. Their foundations lie in the division of labor and exchange of products. For through specialization we increase the total and variety of production and secure its diffusion into consumption. By some false analogy to the "survival of the fittest" many have conceived the whole business world to be a sort of economic "dog eat dog." We often lay too much emphasis upon its competitive features, too little upon the fact that it is in essence a great co-operative effort. And our homemade Bolshevist-minded critics to the contrary, the whole economic structure of our nation and the survival of our high general levels of comfort are dependent upon the maintenance and development of leadership in the world of industry and commerce. Any contribution to larger production, to wider diffusion of things consumable and enjoyable, is a service to the community and the men who honestly accomplish it deserve high public esteem.

The Thing We Need to Consider

The thing we all need searchingly to consider is the practical question of the method by which the business world can develop and enforce its own standards and thus stem the tide of Governmental regulation. The cure does not lie in mere opposition. It lies in the correction of abuse. It lies in an adaptability to changing human outlook.

The problem of business ethics as a prevention of abuse is of two categories: those where the standard must be one of individual moral perceptions, and those where we must have a determination of standards of conduct for a whole group in order that there may be a basis for ethics.

The standards of honesty, of a sense of mutual obligation and of service, were determined 2,000 years ago. They may require at times to be recalled. And the responsibility for them increases infinitely in high places either in business or Government, for there rests the high responsibility for leadership in fineness of moral perception. Their failure is a blow at the repute of business and at confidence in Government itself.

The second field, and the one which I am primarily discussing, is the great area of indirect economic wrong and unethical practices that spring up under the pressures of competition and habit. There is also the great field of economic waste through destructive competition, through strikes, booms and slumps, unemployment, through failure of our different industries to synchronize and a hundred other causes which directly lower our productivity and employment. Waste may be abstractly unethical, but in any event it can only be remedied by economic action.

If we are able to find solution to these collective issues, outside of Government regulation, we must meet two practical problems:

First, there must be orgainzation in such form as can establish the standards of conduct in this vast complex of shifting invention, production, and use. There is no existing basis to check the failure of service or the sacrifice of public interest. Some one must determine such standards. They must be determined and held flexibly in tune with the intense technology of trade.

Second, there must be some sort of enforcement. There is the perpetual difficulty of a small minority who will not play the game. They too often bring disrepute upon the vast majority; they drive many others to adopt unfair competitive methods which all deplore; their abuses give rise to public indignation and clamor which breed legislative action.

In the Presence of New Era

I believe we now for the first time have the method at hand for voluntarily organized determination of standards and their adoption. I would go further; I believe we are in the presence of a new era in the organization of industry and commerce in which, if properly directed, lie forces pregnant with infinite possibilities of moral progress. I believe that we are, almost unnoticed, in the midst of a great revolution—or perhaps a better word, a transformation in the whole super-organization of our economic life. We are passing from a period of extremely individualistic action into a period of associational activities.

Practically our entire American working world is now organized into some form of economic association. We have trade associations and trade institutes embracing particular industries and occupations. We have Chambers of Commerce, embracing representatives of different industries and commerce. We have the labor unions representing the different crafts. We have associations embracing all the different professions—law, engineering, medicine, banking, real estate, and what not. We have farmers' associations, and we have the enormous growth of farmers' co-operatives for actual dealing in commodities. Of indirect kin to this is the great increase in ownership of industries by their employees, and customers, and again we have a tremendous expansion of mutualized insurance and banking.

Although such associational organizations can trace parentage to the middle ages, yet in their present implication they are the birth of the last 50 years, and in fact their growth to enveloping numbers is of the last 25 years. We have, perhaps, 25,000 such associational activities in the economic field. Membership, directly or indirectly, now embraces the vast majority of all the individuals of our country. Action of wide import by such associations has become an important force of late in our political, economic, and social life.

It is true that these associations exist for varied purposes. Some are strong in recognition of public responsibility and large in vsion. Some are selfish and narrow. But they all represent a vast ferment of economic striving and change.

Collective Action

Ever since the factory system was born, there has been within it a struggle to attain more stability through collective action. This effort has sought to secure more regular production, more regular employment, better wages, the elimination of waste, the maintenance of quality or service, decrease in destructive competition and unfair practices, and ofttimes to assure prices or profits. The first phase of development on the business side was "pools" in production and distribution. They were infected with imposition upon the public and their competitors. In some parts there were struggles to correct abuse and waste. They were followed by an era of capital consolidations with the same objects, but also to create a situation of unbreakable agreements. Both were against public interest and the public intervened through the Sherman Act. Yet underneath all these efforts there was a residium of objects which were in public interest.

Associational activities are, I believe, driving upon a new road where the objectives can be made wholly and vitally of public interest. The legitimate Trade Associations and Chambers of Commerce with which I am now primarily concerned possess certain characteristics of social importance and the widest differentiation from pools and trusts. Their membership must be open to all members in the industry or trade, or rival organizations enter the field at once. Therefore, they are not millstones for the grinding of competitors, as was the essence of the old trade combinations. Their purpose must be the advancement of the whole industry or trade, or they can not hold together. The total interdependence of of all industries and commerce compels them in the long run to go parallel to the general economic good. The leaders rise in a real democracy without bosses or political manipulation. Citizens can not run away from their country if they do not like the political

management, but members of voluntary associations can resign and the association dies.

I believe that, through these forces, we are slowly moving toward some sort of industrial democracy. We are upon its threshold, if these agencies can be directed solely to constructive performance in the public interest.

All this does contain some dangers, but they will come only from low ethical standards. With these agencies used as the machinery for the cultivation and spread of high standards, and the elimination of abuses, I am convinced that we shall have entered the great era of self-governing industry and business which has been a dream to many thinkers. A self-governing industry can be made to render needless a vast area of Governmental interference and regulation which has grown up out of righteous complaint against the abuses during the birth pains of an industrial world.

No Need for Alarm

Some people have been alarmed lest this associational movement means the destruction of our competitive system, lest it inevitably destroy the primary individualism which is the impulse of our society. This alarm is groundless. Its rightful activities do not destroy equality of opportunity or initiative. In fact, they offer new avenues of opportunity for individuals to make progress toward leadership in the community. Anyone of them will die at once if it does not offer equality of opportunity to its members, or if it restricts its membership, rival associations at once emerge. They are the safeguards of small business and thus prevent the extinction of competition. They are the alternative to capital consolidation. They are not a growth toward socialism—that is, Government in all business,—they are, in fact, a growth directly away from such an idea.

Right here, for the benefit of the gloomy persons who have a frozen belief that every form of associational activity is a conspiracy to fix prices and to restrain trade, to perpetuate tyranny of employer or employee, we may remember that there are some crooks in every line of endeavor. The underlying purposes of the vast majority are constructive. A minority may be violating the Ten Commandments and need the application of criminal standards. I am speaking, however, of something more vital than porch climbing.

I am, of course, well aware of the legal difficulties that surround certain types of associational work. I do not believe that the development of standards of conduct or the elimination of abuses in public interest has ever been challenged as a violation of the Sherman Act. Moreover, to establish either a physical or a moral standard directly sharpens competition.

These associational activities are the promising machinery for much of the necessary determination of ethical standards, for the elimination of useless waste and hardship from the burden of our economic engines. Moreover, we have in them not only the agencies by which standards can be set, but by co-operative action among the associations representing the different stages of production, distribution and use, we can secure a degree of enforcement far wider than mere public opinion in a single trade.

When standards are agreed upon by the associations representing the manufacturer and distributor and by those representing the user, we hape a triple force interacting for their enforcement.

Illustrations from Real Life

Now, I do not wish anyone to think my feet are not on the ground in all this, and I propose to give a few illustrations from real life of what can be effected by constructive associations and by co-operation among them.

The Department of Commerce has, at the request of the lumber industry, held a number of conferences to discuss the rules of the road in that industry and its relations to the other industries and the common good. The problem was to establish more general and more constructive standards of practice, ethics and waste elimination.

In the toil of formulating these standards, there arose a question of how thick a one-inch board should be. It sounds easy. But it quickly developed to be a question whether it should be one inch thick when it was green; after it was dried; when planed on one side, or when planed on both sides. It developed not only that a choice had to be made among these four alternatives, but also that this choice had to be based upon a proper consideration for the conservation of our forests on one hand, and the provision of a material of such structural character as to constitute a square deal to the consumer on the other. It also developed that there were 32 different thicknesses of a one-inch board in current use, and that some minority of manufacturers in the drive of unfair competition were gradually thinning the board until it threatened to become paper. There also had to be developed the exact differences which threw a board into four or five different grades, and there had to be a determination of standard trade names for different species of wood. The point was that an accurate standard had to be determined before discrimination as to fair dealing and public service could be gauged. That occasion was the foundation of ethics in one-inch boards.

These conferences established some 80 questions involving the whole technology of lumber, and comprising for the first time a definite series of national standards. Here is the sum of our problem. It could only be accomplished through an association in the industry. It is proof of industrial conscience and service.

The Second Part of the Problem

The second part of the practical problem which I enumerated before is enforcement. Again associational activities were called upon. The manufacturers were not alone in these conferences, but the distributor and consumer were also represented by the Architects' Association, the Building Contractors' Association, the Railway and other Purchasing Associations, and the Retailers' Associations. The action and reaction of the buyer and seller upon each other in their desire to secure fair dealing in industry can procure enforcement. Joint inspection bureaus have been erected where complaint for violation can be lodged and determination made. Enforcement may not be 100 per cent, but the standards are there and a sense of individual responsibility and self interest will eventually, I am confident, make them universal.

For years aggrieved persons and some of the trade have been agitating this question of lumber standards in Congress. Numerous bills have been introduced. If this effort succeeds, no legislation will be necessary. This is keeping the Government out of business through the remedy of abuses by business itself.

In the Bituminous Coal Industry

I propose now to mention one other case of a most vitally important and entirely different order, rendered possible only through associational activity in which the Department of Commerce has been in active co-operation. This is in the bituminous coal industry. There have been developed in this industry, as many of you are aware, 30 per cent too many mines operating intermittently during nearly every week of the year, with a large seasonal dip in summer. They thus required 30 per cent more labor and 30 per cent more capital than was necessary to produce the nation's coal. One effect of this situation was that some proportion of the employees secured too few days' work to yield them a reasonable standard of living, even at the apparently high daily wage. This minority of employees were naturally a constant source of agitation and disturbance. The result of all this was a higher cost of producing coal and consequently a higher national coal bill; speculation and uncertainty to the operators; hardship and difficulty and instability to a considerable portion of the workers. The fundamental cause was a vicious cycle of seasonal fluctuation in demand, annual shortages in coal

cars, and periodic strikes which grew out of the instability of labor relationships. These periods of shortened or suspended production always resulted in famine prices for coal and great stimulation to the opening of new mines.

At least four Government commissions have examined this question. Probably, 40 bills have been introduced into Congress proposing Governmental regulation in an attempt to correct the abuses and wastes and public danger that lay in the situation.

The associational agencies in the field were those of the operators, of labor, of the railway executives and of the various associations of industries as consumers. The first problem was to secure a general knowledge of the causes to which I feel the Department of Commerce contributed substantially. Remedy was undertaken in many directions. The railway association induced the construction of a more ample supply of coal cars and greater expedition and interchange in handling between different railways. The Department of Commerce, in co-operation with the Chambers of Commerce, manufacturers' associations, railway and public utilities' associations, secured that more coal should be put in storage during the summer season. The result was that last year for the first time in many years we had no interruption in the distribution of coal due to car shortages. One element of the vicious cycle in this situation is eliminated, provided we can continue this same co-operation in future.

Second Part of the Solution

The second part of the solution was the general agreement by both operators and labor that stability could not be restored in the industry unless there was a long period of continuous operation in which the absence of coal famines and profiteering would eliminate the speculative and high cost producer and reduce the units in the industry, and thus its intermittency. The labor agreement between these associations made last February for a term of three years has assured this improvement.

Here we have an example of the most profound national importance in at least the beginning of stabilization of an industry involved in a most vicious cycle of waste and trouble. The national savings can be measured in hundreds of millions and the human hardships greatly lessened. There will be some preliminary hardship in so great a self-imposed surgical operation, but I am confident it will heal to the mutual interest of the operators, the public and the workers. Today I do not believe there is any sentiment for Government regulation of the bituminous coal industry.

Another instance of great interest in which I had the honor to participate was the abolition of the 12-hour day in the steel industry through the action of the steel association.

I could give you a multitude of examples of the beginnings of constructive self-government in industry among many other associations. The very publication of codes of ethics by many associations instilling service as the primary purpose; the condemnation of specific unfair practices; the insistence upon a higher plane of relationships between employer and employee—all of them are at least indications of improving thought and growing perceptions.

All of this is the strong beginning of a new force in the business world. The individual interest is wrapped up with public interest. They can find expression only through association. Three years of study and intimate contact with associations of economic groups whether in production, distribution, labor or finance, convince me that there lies within them a great moving impulse toward betterment.

If these organizations accept as their primary purpose the lifting of standards, if they will co-operate together for voluntary enforcement of high standards, we shall have proceeded far along the road of the elimination of government from business. American business is never secure unless it has public confidence behind it. Otherwise it will always be a prey to demagoguery and filled with discouragement.

Test of the Social System

The test of our whole economic and social system is its capacity to cure its own abuses. New abuses and new relationships to the public interest will occur as long as we continue to progress. If we are to be wholly dependent upon Government to cure these abuses, we shall by this very method have created an enlarged and deadening abuse through the extension of bureaucracy and the clumsy and incapable handling of delicate economic forces. The old law merchant is the basis of much of our common law. A renaissance of a new law merchant could so advance our standards as to solve much of the problem of Government in business.

American business needs a lifting purpose greater than the struggle of materialism. Nor can it lie in some evanescent, emotional, dramatic crusade. It lies in the higher pitch of economic life, in a finer regard for the rights of others, a stronger devotion to obligations of citizenship that will assure an improved leadership in every community and the nation; it lies in the organization of the forces of our economic life so that they may produce happier individual lives, more secure in employment and comfort, wider in the possibilities of enjoyment of nature, larger in its opportunities of intellectual life. Our people have already shown a higher sense of responsibilities in these things than those of any other country. The ferment of organization for more definite accomplishment of these things in the practical day-to-day progress of business life is alive in our business world.

The Government can best contribute through stimulation of and co-operation with voluntary forces in our national life; for we thus preserve the foundations upon which we have progressed so far—the initiative of our people. With vision and devotion these voluntary forces can accomplish more for America than any spread of the hand of Government.

Kalamazoo Stationery Co. Increases Stock

KALAMAZOO, Mich., August 4, 1924.—Through the medium of the declaration of a stock dividend of $600,000, the Kalamazoo Stationery Company has increased its authorized capital from $250,000 to $850,000. Originally this concern had a capital consisting of $150,000 common stock and $100,000 preferred stock. At a recent meeting of the stockholders it was voted to convert the surplus of over $700,000 into stock, this to be done by issuing five shares of common stock for each single share outstanding.

The Kalamazoo Stationery Company is a closed corporation, having only about 40 stockholders. Over 50 percent of the common stock is held by Bertrand Hopper, secretary and general manager of the company. Ever since its establishment, it has been counted as one of the successful and prosperous concerns of the city. For years an annual dividend of 12 percent has been paid on the outstanding common, a major portion of the earnings being diverted to the surplus fund and the steady expansion of the business.

The proposed increase in capital has been authorized by the Michigan Securities Commission. While old certificates have not been called in it is understood that will be done in the immediate future.

Lake St. John Has 1,500,000 Horsepower

MONTREAL, August 4, 1924.—The possible development of power in the Lake St. John district is in the neighborhood of one and one-half million horse power, being exceeded in importance only by the St. Lawrence and St. Maurice districts. The cost of installation is estimated by O. Lefebvre, engineer, at as low as $50 per horsepower, which is exceptionally low. The Lake St. John and Saguenay district is already an important pulp and paper producting center, and it is considered probable that development of a considerable amount of cheap hydro-electric power would attract electro-chemical industries to that region.

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COLORED PAPER

Hensel, Bruckman & Lorbacher, Deutschland, Hamburg, 3 cs.
P. H. Petry & Co., same, 5 cs.
P. H. Petry & Co., Resolute, Hamburg, 4 cs.
E. Daiber, West Arrow, Antwerp, 4 cs.

DECALCOMANIA PAPER

C. W. Sellers, Columbus, Bremen, 6 cs.

PAPER

Japan Paper Co., Rochambeau, Havre, 28 cs.
Standard Products Corp., same, 3 cs.
Japan Paper Co., Pres. Van Buren, Hongkong, 5 cs.
Fuchs & Lang Mfg. Co., Republic, Bremen, 1 cs.
Globe Shipping Co., same, 1 cs.
Chemical National Bank, Minnekahda, Hamburg, 454 rolls.
D. S. Walton & Co., Hellig Olav, Copenhagen, 36 bls.
Chemical National Bank, Ohio, Hamburg, 50 bls.
Chemical National Bank, same, 1,062 rolls.
International Acceptance Bank, same, 152 rolls.
Tamm & Co., Deutschland, Hamburg, 2 cs.
F. O. Ramm, same, 1 cs.
Yardley & Co., Minnetonka, London, 3 cs.

RAGS, BAGGINGS, ETC.

I. H. Abenheimer, Republic, Bremen, 123 bls. rags.
Goldman Sachs Co., same, 305 bls. rags.
Guaranty Trust Co., same, 160 bls. rags.
Castle & Overton, Marengo, Hull, 24 bls. rags.
A. W. Fenton, Inc., Waukegan, Rotterdam, 404 bls. rags.
Castle & Overton, Hellig Olav, Copenhagen, 276 bls. rags.
E. J. Keller Co., Inc., same, 669 bls. rags.
E. J. Keller Co., Inc., West Arrow, Antwerp, 568 bls. rags.
Whaling Waste Products Co., same, 32 bls. cottonwaste.
Leigh Textile Co., same, 123 bls. cottonwaste.
Castle & Overton, same, 54 bls. rags.
Equitable Trust Co., Minnetonka, London, 55 bls. rags.
E. J. Keller Co., Inc., Nyassa, Hamburg, 647 bls. rags.
E. J. Keller Co., Inc., Luetzow, Bremen, 43 bls. rags.
E. J. Keller Co., Inc., Belgenland, London, 372 bls. rags.
W. Schall & Co., Pres. Roosevelt, Bremen, 118 bls. rags.
F. Salomon & Co., Deutschland, Hamburg, 53 bls. rags.
P. Berlowitz, Mercier, Antwerp, 422 bls. rags.
S. Birkenstein & Sons, Columbia, Glasgow, 16 bls. paperstock.
E. J. Keller Co., Inc., Iowan, Kobe, 300 bls. rags.
Castle & Overton, Luetzow, Bremen, 33 bls. flax-waste.

OLD ROPE

Brown Bros. Co., Marengo, Hull, 115 coils.
Brown Bros. Co., same, Newcastle, 537 coils.
Brown Bros. Co., Waukegan, Rotterdam, 68 coils.
E. J. Keller Co., Inc., Hellig Olav, Copenhagen, 221 coils.
Brown Bros. Co., Deutschland, Hamburg, 61 coils.
Brown Bros. Co., Mercier, Antwerp, 98 coils.
Brown Bros. Co., Mercier, Antwerp, 45 bls.

WOOD PULP

Castle & Overton, Republic, Bremen, 409 bls. wood pulp, 81 tons.
Equitable Trust Co., Republic, Bremen, 1,250 bls. sulphate pulp, 254 tons.
Poland Paper Co., Hellig Olav, Christiania, 1,250 bls. wood pulp.
Jandersen & Co., same, 300 bls. wood pulp.
Scandinavian Pulp Agency, Inc., same, Copenhagen, 127 bls. sulphite pulp.
Johaneson, Wales & Sparre, Inc., same, 250 bls. sulphite pulp.
Johaneson, Wales & Sparre, Inc., Luetzow, Bremen, 1,350 bls. sulphite.

WOOD PULP BOARDS

A. E. MacAdam Co., President Wilson, Trieste, 100 bls. wood pulp boards.

CHINA CLAY

J. W. Higman Co., Inc., Wales Maru, Fowey, 838 tons, 6 cwt.
Morey & Co., Inc., same, 100 tons, 9 cwt.
L. A. Salomon & Bro., same, 20 tons.
Baring Bros. & Co., Ltd., same, 1,320 tons, 7 cwt.

BOSTON IMPORTS

WEEK ENDING AUGUST 2, 1924

Castle & Overton, Sac City, Holland, 381 bls. wood pulp.
Katzenstein & Keene, Inc., Novian, London, 151 bls. rags.
Katzenstein & Keene, Inc., Mercian, London, 107 bls. new cuttings.
Bulkley, Dunton & Co., Progress, Iggsund, 2,875 bls. wood pulp.
Bulkley, Dunton & Co., St. Anthony, Iggsund, 125 bls. wood pulp.
Bulkley, Dunton & Co., Westport, Hamburg, 1,360 bls. wood pulp.
Bulkley, Dunton & Co., Tyrifjoid, Gefle, 1,750 bls., wood pulp.
Bulkley, Dunton & Co., Nordsphal, Stugsund, 4,250 bls., wood pulp.
Bulkley, Dunton & Co., Nordsphal, Iggsund, 4,000 bls., wood pulp.
Johaneson, Wales & Sparre, Barc Frano, 3,600 bls. kraft pulp.

BALTIMORE IMPORTS

WEEK ENDING AUGUST 2, 1924

E. J. Keller Co., Inc., Argosy, Gefle, 660 bls. wood pulp.
Castle & Overton, Sac City, Holland, 765 bls. wood pulp.
Castle & Overton, same, Germany, 135 bls. wood pulp.
Bulkley, Dunton & Co., Porta, Hamburg, 2,100 bls. wood pulp.
Lagerloef Trading Co., Inc., Argosy, 615 tons chemical wood pulp.
Johaneson, Wales & Sparre, Inc., Chastine Maersk, Obbalo, 700 bls. kraft pulp.

(*Continued on page* 64)

New York Office
280 Broadway

Dayton Office

Chicago Office
10 So. La Salle St.

Compare it
Tear it
Test it
and you will specify it

HOWARD BOND

WATERMARKED

"The Nation's Business Paper"

Made by

THE HOWARD PAPER CO. URBANA, OHIO

Howard Laid Bond
Howard Ledger
Howard Bond
Envelopes

The B Co. Inc.

QUALITY PULPS

"HAFSLUND BEAR"
Bleached Sulphite

"FORSHAGA"
Bleached Sulphite

"HURUM SPECIAL"
Extra Strong Kraft

NORWAY SPECIAL
KOOS
BAC

"BAMBLE"
Extra Strong Kraft

The Borregaard Company

Incorporated

200 FIFTH AVENUE NEW YORK, N. Y.

IN THE YEAR 1690

the first paper mill was established on ground that is now included in Philadelphia.

IN THE YEAR 1909

the Kalamazoo Vegetable Parchment mill was established and so it happens that in 15 years we have grown to be the largest producers of Vegetable Parchment Paper under one roof in the world. This product wraps all moist and greasy foods. Our bread wraps and waxed papers, our bond and ledger papers and our handy household paper in rolls are favorably known and universally used.

Kalamazoo Vegetable Parchment Company

Kalamazoo, Michigan

Perforated Metal Screens

For Pulp and Paper Mills

STEEL, COPPER, BRASS, BRONZE and other Alloys

punched for Centrifugal and Rotary Screens, Pulp Washers, Drainer Bottoms, Filter Plates, etc.

.065 Inch Round

⅛ x ⅓ Inch Slots

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63-65 FAIRMONT AVE. JERSEY CITY, N. J.

STOKERS

Builders of Mechanical Stokers for 36 years

Sales and Service Offices in All Principal Cities

Address Nearest Office

Westinghouse Electric & Mfg. Co.
So. Philadelphia Works, Philadelphia, Pa.

W WESTINGHOUSE ELECTRIC

Westinghouse

Imports of Paper and Paper Stock

(*Continued from page 62*)

PHILADELPHIA IMPORTS

WEEK ENDING AUGUST 2, 1924

Chas. Robbins, Fenchurch, Marseilles, 15 cs. paper.
Castle & Overton, same, 289 bls. rags.
E. J. Keller Co., Inc., same, Barcelona, 112 bls. rags.
D. M. Hicks, same, 334 bls. rags.
S. Birkenstein & Sons, same, 129 bls. rags.
A. H. Searle, West Arrow, Antwerp, 48 bls. rags.
E. J. Keller Co., Inc., same, 125 bls. rags.
A. Hurst & Co., same, 42 bls. rags.
L. H. Abenheimer, same, 65 bls. rags.
Castle & Overton, same, 335 bls. rags.
J. M. A. Steer, same, 430 bls. rags.
Philadelphia National Bank, same, 396 bls. rags.
E. J. Keller Co., Inc., Burgerdyk, Amsterdam, 513 bls. rags.
E. J. Keller Co., Inc., same, Rotterdam, 76 bls. rags.
Castle & Overton, Germany, 415 bls. wood pulp.
Castle & Overton, Germany, 2,600 bls. wood pulp.
Paper Makers Importing Co., Wales Maru, Fowey, 760 tons, 1 cwt., china clay.
J. W. Higman Co., Inc., same, 177 tons, 11 cwt., china clay.
Morey & Co., Inc., same, 29 tons, 14 cwt. china clay.
Baring Bros. & Co., Ltd., same, 2,006 tons, 10 cwt., china clay.
J. Richardson & Co., same, 52 tons, 17 cwt., china clay.

PORTLAND, MAINE, IMPORTS

WEEK ENDING AUGUST 2, 1924

Bulkley, Dunton & Co., Progress, Iggsund, 2,340 bls., wood pulp.
Bulkley, Dunton & Co., Litvard, 6,000 bls. wood pulp.
Bulkley, Dunton & Co., St. Anthony, Iggsund, 2,660 bls. wood pulp.
Lagerloef Trading Co., Inc., St. Anthony, 745 tons chemical wood pulp.

WAXED PAPER STANDARDS

(*Continued from page 29*)

bleached pulp is used. It was not considered practical to make any special sub-division for paper containing certain percentages of unbleached pulp. The full bleached sheet is to be known as a No. 1 Grade. The semi-bleached sheet, regardless of how small a percent of unbleached pulp it contains, is to be known as a No. 2 Grade. The Association therefore has adopted:

No. 1 Grade Paper as a full bleached all sulphite sheet.

No. 2 Grade Paper as all papers not falling in the No. 1 Grade class.

NOTE: If bleaching is carried to such a point that the resulting paper is equal in color to a full bleached sheet, it then takes the classification of Grade 1. If the bleaching is carried to any lesser point so that the color is inferior to the full bleached sheet, it takes Class 2.

SECOND: In establishing standards for finished waxed paper the Association considers that the standard weight given should be the waxed weight; it seemed inadvisable to involve the buyer in a discussion of the raw weight of the paper—the amount of wax contained, etc.—it being the purpose of the Waxed Paper Manufacturer to submit to the buyer a completely manufactured article suitable for the buyer's purpose.

The Association feels that by establishing a finished weight and specifying the degree of wax to be used, the buyer will be insured of getting a product satisfactory to this purpose.

Finished Weights and Grades of Wax

BREAD WRAPPERS

The finished weight of Bread Wrappers shall not exceed 30 lbs. waxed weight.

For Dry Wax Bread Wrappers, Refined Wax—D shall be used. For Self-Sealing Bread Wrappers, Refined Wax—C shall be used.

TISSUES AND CANDY PAPERS

The light weight tissue commonly used for lunch rolls shall have a waxed weight of 12 lbs. using Refined Wax—D or better. There shall be a medium weight tissue having a basis weight of 16 lbs. using Refined Wax—D or better.

KISS PAPERS shall have a finished weight of 25 lbs. waxed with Refined Wax—C.

CARAMEL PAPERS shall have a finished weight of 30 lbs. waxed with Refined Wax—C.

General Standardizations

The following general standardizations are recommended as applying to these papers.

All papers which are known in the trade as *Dry Wax* containing approximately 25 per cent wax content shall be made with Refined Wax—D.

All papers classified in the trade as well waxed or Self-Sealing, with the 25 per cent to a 50 per cent wax content, shall be made with Refined Wax—C.

All Self-Sealing papers having a greater than 50 per cent wax content shall use either Refined Wax B or A.

Certain papers in this last class, because of their mechanical requirements, shall take Refined Wax—A.

The Association has under consideration specifications covering sizes and counts for Caramel and Kiss Wrappers, Lunch Rolls and Butter Wraps, as well as waxed papers sold by the pound.

Members of the Association will make no mystery of these classifications, but fully and frankly guarantee them to their buyers to the end that buyers will not be satisfied with substitutes and will request and demand in their specifications the proper character of paper for their special purpose.

Dean's Directory for 1924 Just Out

Among the many thousands of visitors from Overseas who are attending the British Empire Exhibition at Wembley, must be many who are interested in the paper and allied trades, and will welcome the new edition of the "Paper Makers' Directory of All Nations," now in its 33rd year of issue and just published for 1924 (1,000 pp., Demy 8vo., 21/—net), as just the book they want to get them into touch with the particular branch of the trade in which they are interested.

It forms a valuable medium for bringing paper makers into communication with merchants, wholesale houses, newspaper proprietors, large printing firms, etc.; engineers of all kinds with paper makers, pulp and board manufacturers, printers, chemical manufacturers, etc.; chemical and color manufacturers with paper makers and pulp manufacturers; rag merchants, waste paper dealers, pulp manufacturers, china clay and fiber merchants, paper, pulp and board agents, paper stock dealers, felt and paper machine wire manufacturers, etc., with paper makers, and a host of allied trades, not only at home but in foreign and colonial markets.

The Directory is particularly easy of reference, being alphabetically arranged throughout, both as regards countries and mills, while the list of mill productions under more than 400 trade headings is also alphabetically classified in three ways, under goods, country of origin and name of firm; further, the "Classified Index to Commercial Prospectuses" on pp. XIII-XXXVII forms a most useful buyers' guide.

Abitibi Buys Additional Taylor Stokers

TORONTO, Ont., August 4, 1924.—The Taylor Stoker Company, Ltd., of Toronto, Ont., announces the purchase by the Abitibi Power and Paper Company, Ltd., of two Taylor Stokers for its mill at Iroquois Falls, Ont. These stokers are in addition to the eight Taylor Stokers now installed.

The Home of Quality

FACTORY
132ND TO 133RD ST. & BROOK AVE

PAPER BAGS and SACKS

GLASSINE BAGS—SPECIALTIES

Operating a Modern Printing Plant

This Registered Trade Mark Octagon

on a Paper Bag vouches for Its Good Quality

SCHORSCH & CO.

Manufacturers *Established 1901*

500 East 133d Street . New York

1864 **1924**

"EXCELSIOR" FELTS

for every grade of

PULP AND PAPER

We continue to maintain at the top the quality of Excelsior Felts, as we have done since we, as pioneers, made the first endless paper machine felts manufactured in America.

Seamless felts for fast running.
Satin Style felts for finish.
Special felts to meet every condition.
Send us your felt problems.

KNOX WOOLEN COMPANY
CAMDEN, MAINE

SOLD BY
BULKLEY, DUNTON & COMPANY
75-77 Duane St., N. Y., and direct

Clay

300 Tons daily

Entire production of a group of mines under one management insures uniformity in quality and minimum production costs.

Let us submit samples and quote you.

AMERICAN MADE FOR AMERICAN TRADE

THE MINER EDGAR CO

110 William Street
New York

FOURDRINIER WIRES

Dandy Rolls, Cylinder Molds,
Steel, Brass and Bronze
Wire Cloth
Bank and Office Railings.

CHENEY BIGELOW WIRE WORKS
Established 1842
SPRINGFIELD MASS.

J. ANDERSEN & CO.

21 EAST 40th STREET, NEW YORK CITY

Importers of Chemical Pulps

BLEACHED and UNBLEACHED

Agents for Kellner Partington Paper Pulp Co., Ltd.
Sarpsborg, Norway; Forshaga, and Edsvalla, Sweden.
Kronstädter Papierstoff—Fabriks Actien—Gesellschaft
Mills at Tuciansky, Sv. Martin

Market Quotations

PAPER SECURITIES CLOSING PRICES TUESDAY

Reported by Stewart Tuttle & Co., Inc., 120 Broadway, New York

Stocks	BID	ASKED
Abitibi Power and Paper Company, Ltd.	56⅞	59
Abitibi Power and Paper Company, Ltd, Pfd.	99	101
American Writing Paper Company, Pfd.	3½	4½
Brompton Pulp and Paper Company, Ltd.	32	32¼
Donnacona Paper Company, Ltd.	45	50
Donnacona Paper Company, Ltd., Pfd.	98	100
International Paper Company	54¾	55
International Paper Company, Pfd.	72¾	73½
Laurentide Company, Ltd.	88	89
Price Brothers	40½	41
St. Maurice Paper Co., Ltd.	88	89
Smith (Howard) Paper Mills, Ltd.	37	40
Spanish River Pulp and Paper Mills, Pfd.	108¼	108⅝
Spanish River Pulp and Paper Mills, Ltd.	114⅝	115
Union Bag and Paper Corp.	48	50
Wayagamack Pulp and Paper Company, Ltd.	33	35
West Virginia Pulp and Paper Company	50	54

Bonds	BID	ASKED
Abitibi Power and Paper Company, Ltd., 1st 6s, 1934	99	101
Abitibi Power and Paper Company, Ltd., Gen. 6s 1940	93	95
Abitibi Power and Paper Company, Ltd., Con. 8s 1931	102½	103½
Belgo Canadian Paper Company, 1st 6s 1943	94	95
Brown Company Serial 6s	99¾	100¾
Carthage Sulphite Pulp and Paper Company, 1st 8s 1941	35	50
Continental Paper and Bag Mills Corporation, 1st and Ref. 6½s, Series "A," 1944	94	95
Donnacona Paper Company, Ltd., 1st 6s 1940	98	100
Eddy Paper Company, 1st 7½s 1931	93½	94¾
Gair (Robert) Company, 1st 7s 1937	97½	98
International Paper Company, 1st and Ref. 5s (Series "B") 1947	86½	87
Mattagami Pulp and Paper Company, 1st 6s 1937	58	60
Mattagami Pulp and Paper Company, 1st 7s 1949	20	25
Oswego Falls Corporation, 1st 8s 1942	101½	102
Oxford Paper Company, 1st and Ref. 6s (Series "A") 1947	98	100
Parker, Young Company, 1st 6½s 1944	95½	97½
Paterson Parchment Paper Company, 1st 6s (Series "A") 1938	96	97
Peshtigo Paper Company, 1st 7s (Series "B") 1942	92	94½
Price Bros. & Co., Ltd., 1st 6s (Series "A") 1943	98	99
Provincial Paper Mills, Ltd., 1st 6s 1940	98	100
Riordon Pulp and Paper Company, Ltd., Gen. 6s 1929	14	18
Riordon Pulp and Paper Company, Ltd., 6s 1942	80	84
Riordon Company, Ltd., 1st and Ref. 8s 1940	87	88
River Raisin Paper Company, 1st 8s 1936	103	104
Smith (Howard) Paper Mills, Ltd., 6s 1934	95	95½
Smith (Howard) Paper Mills, Ltd., 1st Ref. 7s 1941	94½	96½
Spanish River Pulp and Paper Mills, Ltd., 1st 6s 1931	102½	104
Spanish River Pulp and Paper Mills, Ltd., Gen. 8s 1941	102¾	103¾
Wayagamack Pulp and Paper Company, Ltd., 1st 6s 1951	74	77

Paper

F. o. b. Mill

Ledgers	11.00	@38.00
Bonds	9.00	@45.00
Writings—		
Extra Superfine	14.00	@30.00
Superfine	14.00	@30.00
Tub Sized	10.00	@15.00
Engine Sized	8.00	@11.00
News—		
Rolls, contract	3.65	@ 3.90
Rolls, transit	3.75	@ 4.25
Sheets	4.15	@ 4.40
Side Runs	3.00	@ 3.50
Book, Cased—		
S. & S. C.	8.00	@ 9.50
M. F.	7.50	@ 8.85
Coated and Enamel	9.00	@14.00
Lithograph	9.00	@14.00
Tissues—		
White No. 1	.75	@ .76
White No. 2	.70	@ .80
Colored	1.05	@ 1.90
Anti-Tarnish	1.35	@ 1.90
Kraft	.85	@ 1.10
Manila	.75	@ .80
Kraft—		
No. 1 Domestic	5.50	@ 6.25
No. 2 Domestic	5.00	@ 5.75
Imported	5.50	@ 5.75
Manila—		
No. 1 Jute	9.00	@
No. 2 Jute	7.75	@ 8.50
No. 1 Wood	4.75	@ 5.25
No. 2 Wood	4.00	@ 4.50
Butchers	3.75	@ 4.00
Fibre Papers—		
No. 1 Fibre	5.50	@ 5.75
No. 2 Fibre	4.75	@ 5.25
Common Bogus	2.40	@ 2.60
S. Screening	3.25	@ 3.75
Card Middles	4.00	@ 5.00

Boards—per ton—		
News	47.50	@50.00
Straw	50.00	@55.00
Chip	37.50	@42.50
Binders' Boards	75.00	@80.00
Sgl. Mla. Ll. Chip	50.50	@55.50
Wood Pulp	70.00	@75.00
Container	57.50	@65.00
Sulphate Screenings—		
Coarse	.80	@ .90
Refined	1.75	@ 2.00
Ground Wood—		
Screenings	20.00	@25.00
Glassine—		
Bleached, basis 25 lbs.	12.00	@15.00
Bleached, basis 20 lbs.	14.00	@17.00

Mechanical Pulp

(Ex-Dock)

No. 1 Imported	35.00	@40.00

(F. o. b. Mill)

No. 1 Domestic	27.50	@34.00

Chemical Pulp

(Ex-Dock, Atlantic Ports)

Sulphite (Imported)—		
Bleached	3.75	@ 4.50
Easy Bleaching	2.90	@ 3.10
No. 1 strong unbleached	2.60	@ 2.80
No. 2 strong unbleached	2.20	@ 2.40
No. 1 Kraft	2.50	@ 2.85
Sulphate—		
Bleached	3.50	@ 3.65

(F. o. b. Pulp Mill)

Sulphite (Domestic)—		
Bleached	3.50	@ 4.50
Easy Bleaching Sulphite	2.60	@ 3.00
News Sulphite	2.40	@ 2.60
Mitscherlich	2.60	@ 3.00
Kraft (Domestic)	2.60	@ 2.85
Soda Bleached	3.90	@ 4.10

Domestic Rags

New Rags

Prices to Mill, f. o. b. N. Y.		
Shirt Cuttings—		
New White, No. 1	13.00	@13.50
New White, No. 2	6.50	@ 6.75
Silesias, No. 1	7.50	@ 8.00
New Unbleached	10.50	@11.00
Washables	5.50	@ 6.15
Fancy	6.50	@ 7.00
Blue Overall	8.00	@ 8.50
New Blue	5.50	@ 6.00
New Black Soft	4.65	@ 5.15
New Light Seconds	3.00	@ 3.25
O. D. Khaki Cuttings	4.75	@ 5.00
Men's Corduroy	4.00	@ 4.25
New Canvas	7.00	@ 7.50
New Black Mixed	2.75	@ 3.00

Old Rags

White, No. 1—		
Repacked	6.50	@ 7.00
Miscellaneous	5.50	@ 5.75
White, No. 2—		
Repacked	4.25	@ 4.50
Miscellaneous	3.75	@ 4.00
St. Soiled, White	2.80	@ 3.00
Thirds and Blues—		
Repacked	3.62½	@ 3.87½
Miscellaneous	2.90	@ 3.15
Black Stockings	3.50	@ 3.75
Roofing Rags—		
Cloth Strippings	1.90	@ 2.00
No. 1	1.90	@ 2.00
No. 2	1.80	@ 1.90
No. 3	.90	@ 1.00
No. 4	.90	@ 1.00
No. 5A	1.50	@ 1.60

Foreign Rags

New Light Silesias	7.50	@ 8.75
Light Flannelettes	8.00	@ 8.25
Unbl'chd Cottons	9.00	@ 9.50
New White Cuttings	11.50	@12.50
New Light Oxfords	7.75	@ 8.25
New Light Prints	7.25	@ 7.75
New Mixed Cuttings	3.25	@ 3.75
New Dark Cuttings	3.00	@ 3.50
No. 1 White Linens	9.00	@10.00
No. 2 White Linens	7.00	@ 8.00
No. 3 White Linens	6.00	@ 6.50
No. 4 White Linens	4.50	@ 5.50
Old Extra Light Prints	4.00	@ 4.50
Ord. Light Prints	3.00	@ 3.50
Med. Light Prints	2.40	@ 2.50
Dutch Blue Cottons	3.50	@ 4.00
Ger. Blue Cottons	3.00	@ 3.25
Ger. Blue Linens	3.50	@ 4.00
Checks and Blues	2.25	@ 2.50
Dark Cottons	1.50	@ 1.75
Shoppery	1.40	@ 1.60
French Blues	3.25	@ 3.75

Bagging

Prices to Mill F. o. b. N. Y.

Gunny No. 1—		
Foreign	1.60	@ 1.70
Domestic	1.55	@ 1.65
Wool, Tares, light	1.40	@ 1.50
Wool, Tares, heavy	1.40	@ 1.50
Bright Bagging	1.25	@ 1.40
Sound Bagging	.90	@ 1.00
Manila Rope—		
Foreign	6.25	@ 6.50
Domestic	6.50	@ 6.75
New Bu. Cut	2.40	@ 2.60
Hessian Jute Threads—		
Foreign	2.25	@ 2.50
Domestic	2.10	@ 2.20

Old Waste Papers

(F. o. b. New York)

Shavings—		
Hard, White, No. 1	3.25	@ 3.60
Hard, White, No. 2	2.90	@ 3.10
Soft. White, No. 1	2.50	@ 2.70
Flat Stock—		
Stitchless	1.30	@ 1.40
Over Issue Mag.	1.40	@ 1.50
Solid Flat Book	1.20	@ 1.30
Crumpled No. 1	1.90	@ 1.00
Solid Book Ledger	1.80	@ 1.90
Ledger Stock	1.30	@ 1.40
New B. B. Chips	.50	@ .55
Manilas—		
New Env. Cut	2.45	@ 2.55
New Cut. No. 1	1.65	@ 1.90
Extra No. 1 old	1.30	@ 1.40
Print	.80	@ .90
Container Board	.55	@ .65
Bogus Wrapper	.60	@ .70
Old Krafts Machine compressed bales	1.65	@ 1.75
News—		
No. 1 White News	1.65	@ 1.75
Strictly Overissue	.80	@ .90
Strictly Folded	.50	@ .60
No. 1 Mixed Paper	.40	@ .50
Common Paper	.35	@ .40

Twines

Cotton—(F. o. b. Mill)—		
No. 1	.43	@ .48
No. 2	.41	@ .43
No. 3	.40	@ .42
India, No. 6 basis—		
Light	.19	@ .20
Dark	.17	@ .19
B. C., 18 basis	.41	@ .42
A. B. Italian, 18 Basis	.51	@ .61
Finished Jute—		
Dark, 18 basis	.30	@ .31
Light, 18 basis	.28	@ .30
Jute Wrapping, 3-6 Ply—		
No. 1	.20	@ .23
No. 2	.18	@ .20
Tube Rope—		
4-ply and larger	.15	@ .17
Fine Tube Yarn—		
5-ply and larger	.20	@ .28
4-ply	.21	@ .24
3-ply	.22	@ .25
Unfinished India—		
Basis	.14	@ .15
Paper Makers' Twine		
Balls	.12	@ .13
Box Twine, 2-3 ply	.14	@ .15
Jute Rope	.15	@ .16
Amer. Hemp, 6	.30	@ .32
Sisal Hay Rope—		
No. 1 Basis	.14	@ .16
No. 2 Basis	.10	@ .12
Sisal Lath Yarn—		
No. 1	.14	@ .15
No. 2	.11	@ .13
Manila Rope	.18	@ .19

CHICAGO

[FROM OUR REGULAR CORRESPONDENT]

Paper

F. o. b. Mill

All Rag Bond	35 @	40
No. 1 Rag Bond	25 @	35
No. 2 Rag Bond	14 @	25
Water Marked Sulphite	9 @	12
Sulphite Bond	7 @	10¾
Sulphite Ledger	9½ @	12
Superfine Writing	18 @	24
No. 1 Fine Writing	14 @	18
No. 2 Fine Writing	12 @	14
No. 3 Fine Writing	9 @	12
No. 1 M. F. Book	5½ @	7½
No. 1 S. & S. C. Book	6½ @	7¾
Coated Book	8 @	10
Coated Label	8 @	10
News—Rolls, mill	3¾ @	4½
News—Sheets, mill	4 @	4¾
No. 1 Manila	4¾ @	6½
No. 1 Fibre	4¾ @	5½
No. 2 Manila	3¾ @	4¼
Butchers' Manila	4½ @	5
No. 1 Kraft	5½ @	6
No. 2 Kraft	4¾ @	5
Wood Tag Boards	4½ @	6
Sulphite Screenings	2¼ @	2¼

Boards, per ton—		
Plain Chip	35.00	@40.00
Solid news	37.50	@42.50
Manila Line Chip	50.00	@52.50
Container Lined—		
85 Test	55.00	@60.00
100 Test	60.00	@65.00

Old Papers

F. o. b. Chicago

Shavings—		
No. 1 Hard White	3.00	@
White Envel. Cuttings	3.00	@
No. 1 Soft Shav.	2.50	@ 2.60
No. 1 Mixed	1.25	@ 1.35
No. 2 Mixed	1.15	@ 1.25
Ledgers and Writings	1.60	@ 1.65
Solid Books	1.55	@ 1.60

No. 1 Books, Light.	1.40	@	1.50
Blanks	1.75	@	1.80
Ex. No. 1 Manila	1.90	@	2.00
Manila Envelope Cuttings	2.10	@	2.15
No. 1 Manilas	1.20	@	1.25
Folded News (over issue)	1.00	@	1.10
Old Newspapers—			
No. 1	.95	@	1.00
No. 2	.80	@	.85
Mixed Papers—			
No. 1	.85	@	
No. 2	.80	@	
Straw Clippings	.80	@	—
Binders' Clippings	.80	@	—
Kraft	2.00	@	2.10
New Kraft Cuts	2.10	@	2.15
Roofing Stock, f. o. b. Chicago, Net Cash—			
No. 1	$42.00	@	—
No. 2	40.00	@	—
No. 3	38.00	@	—
No. 4	38.00	@	—

PHILADELPHIA

[FROM OUR REGULAR CORRESPONDENT]

Paper

Bonds	.09½	@	.53
Ledgers	.15	@	.40
Writings—			
Superfine	.15	@	.20
Extra fine	.12	@	.22
Fine	.20	@	.30
Fine, No. 2	.20	@	.25
Fine, No. 3	.15	@	.20
Book, M. F.	.09¼	@	.12¼
Book, S. S. & C.	.11	@	.15
Book, Coated	.14¼	@	.20
Coated Lithograph.	.10	@	.15
Label	.10	@	.15
News	.05	@	.07
No. 1 Jute Manila	.12	@	.13
Manila Sul., No. 1	.08	@	.10
Manila No. 2	.07½	@	.08
No. 2 Kraft	—	@	.08½
No. 1 Kraft	—	@	.09½
Common Bogus	.03½	@	.04
Shaw Board	55.00	@	60.00
News Board	42.50	@	—
Chip Board	40.00	@	42.50
Wood Pulp Board.	2.75	@	3.00
(Carload Lots)			
Binder Boards—			
Per ton	70.00	@	75.00
Carload lots	65.00	@	70.00
Tarred Felts—			
Regular	61.00	@	63.00
Slaters	66.00	@	68.00
Best Tarred, 1-ply (per roll)	1.70	@	1.80
Best Tarred, 2-ply (per roll)	1.50	@	1.60
Best Tarred, 3-ply.	2.00	@	2.10

Bagging

F. o. b. Phila.

Gunny No. 1—			
Foreign	1.60	@	1.65
Domestic	1.75	@	—
Manila Rope	6.00	@	6.37½
Sisal Rope	1.25	@	—
Mixed Rope	1.25	@	—
Scrap Burlaps	1.00	@	1.25
Wool Tares, heavy.	2.00	@	2.13
Mixed Strings	1.00	@	—
No. 1, New Lt. Burlap	2.00	@	—
New Burlap Cuttings	2.00	@	2.25

Old Papers

F. o. b. Phila.

Shavings—			
No. 1, Hard White	3.25	@	3.50
No. 2, Hard White	3.00	@	3.25
No. 1 Soft White	2.25	@	2.50
No. 2 Soft White	1.75	@	2.00
No. 1 Mixed	1.50	@	1.75
No. 2 Mixed	1.00	@	1.10
Solid Ledger Stock.	1.50	@	1.75
Writing Paper	1.25	@	1.50
No. 1 Books, heavy.	1.25	@	1.35
No. 2 Books, light.	.90	@	1.00
No. 1 New Manila.	2.30	@	2.40
No. 1 Old Manila	1.50	@	1.75
Container Manila	.80	@	.90
Old Kraft	2.10	@	2.20
Overissue News	.75	@	—
Old Newspaper	.50	@	.60
No. 1 Mixed Paper.	.60	@	.65
Common Paper	.40	@	.50
Straw Board, Chip.	.50	@	.60
Binders Bd., Chip.	.50	@	.60

Domestic Rags—New.

Price to Mill, f. o. b. Phila.

Shirt Cuttings—			
New White, No. 1	.12	@	.13
New White, No. 2	.07	@	—
Silesias, No. 1	.08¼	@	.08½
New Unbleached.	.11½	@	.11¾
Washable	.05½	@	.05¾
Fancy	.07	@	.07¼
Cottons—according to grades—			
Blue Overall	.09½	@	.09½
New Blue	.03½	@	.03¾
New Black Soft.	.06	@	.06¼
New Light Seconds	.03½	@	.03¼
Khaki Cuttings	.05½	@	.06
Corduroy	.04	@	.04½
New Canvas	.10½	@	.11
New Black Mixed	.05	@	.05¼

Old

White, No. 1—			
Repacked	7.50	@	8.00
Miscellaneous	6.25	@	6.50
White, No. 2—			
Repacked	.05	@	.05½
Miscellaneous	.04¾	@	.05⅛
Thirds and Blues—			
Repacked	3.65	@	—
Miscellaneous	2.80	@	—
Black Stockings	4.00	@	4.50
Roofing Stock—			
No. 1	1.75	@	1.85
No. 2	1.65	@	1.75
No. 3	1.15	@	1.20
No. 4	1.00	@	1.35
No. 5A	1.40	@	—
B	1.25		nominal
C	1.15		nominal

TORONTO

Paper

(Mill Prices to Jobbers f. o. b. Mill)

Bond—			
Sulphite	.11	@	.12½
Light tinted	.12	@	.13½
Dark tinted	.13½	@	.15
Ledgers (sulphite).	—	@	.13
Writing	.09½	@	.12
News, f. o. b. Mills—			
Rolls (carloads)	3.75	@	—
Sheets (carloads)	—	@	4.50
Sheets (2 tons or over)	—	@	4.75
Book—			
No. 1 M. F. (carloads)	9.00	@	—
No. 2 M. F. (carloads)	8.00	@	—
No. 3 M. F. (carloads)	7.50	@	—
No. 1 S. C. (carloads)	9.50	@	—
No. 2 S. C. (carloads)	8.50	@	—
No. 1 Coated and litho	14.50	@	—
No. 2 Coated and litho	13.50	@	—
No. 3 Coated and litho	12.75	@	—
Wrapping—			
Rag Brown	4.75	@	—
White Rap	5.25	@	—
"B" Manila	5.50	@	—
No. 1 Manila	6.50	@	—
Fiber	6.50	@	—
Kraft, M. F.	7.00	@	—
M. G.	7.15	@	—

Pulp

(F. o. b. Mill)

Ground wood	$27.00	@	28.00
Sulphite easy bleaching	55.00	@	60.00
Sulphite news grade	50.00	@	55.00
Sulphite, bleached.	75.00	@	80.00
Sulphate	60.00	@	62.50

Old Waste Paper

(In carload lots, f. o. b. Toronto)

Shavings—			
White Env. Cut.	3.60	@	—
Soft White Book shavings	2.80	@	—
White Blk. News.	1.50	@	—
Book and Ledger—			
Flat Magazine and Book Stock(old)	1.25	@	—
Light and Crumpled Book Stock	1.10	@	—
Ledgers and Writings	1.50	@	—
Solid Ledgers	1.50	@	—
Manilas—			
New Manila Cut.	—	@	1.60
Printed Manilas	1.10	@	—
Kraft	2.05	@	—
News and Scrap—			
Strictly Overissue.	.80	@	—
Folded News	.80	@	—
No. 1 Mixed Papers	—	@	.40
Domestic Rags— Price to mills, f. o. b. Toronto Per lb.			
No. 1 White shirt cuttings	.13½	@	.13¾
No. 2 White shirt cuttings	.06½	@	.07
Fancy shirt cuttings	.06¾	@	.07
No. 1 Old Whites.	—	@	—
Third and blues	.05	@	.05¼
Per cwt.			
Black stockings	.04	@	—
Roofing stock:			
No. 1	2.20	@	—
No. 2	2.10	@	—
Manila rope	.06	@	.06¼
No. 2	1.55	@	—

Poor Year in Czechoslovakian Paper Industry

WASHINGTON, D. C., July 14, 1924.—Last year was an unfavorable one for the Czechoslovak paper industry which was seriously handicapped by the relatively high operating costs as compared with the German mills and also the high freight rates according to a report just received by the Paper Division of the Department of Commerce. In discussing the situation in detail the report continues:

Competition on the part of the German and Scandinavian mills in foreign markets was reported to have been very keen, and in writing, wrapping, and cigarette papers the Czechoslovak mills appear to have been unable to hold their own. The loss in wrapping paper exports was particularly high, shipments for 1923 having fallen 46 per cent under those for the previous year. The most important customers for this class of paper are Great Britain and Hungary, both of which decreased their imports during 1923, the former from 3,194 metric tons to 1,073 tons, and the latter from 4,796 tons to 1,855 tons. Other leading countries of destination are, Austria, France, Germany, Italy, and the United States, all of which curtailed their imports from Czechoslovakia during 1923. Exports to Argentina and Brazil also appear to have fallen off considerably during alst year, but on the other hand increased shipments were made to China and Japan, the former having taken 373 tons and the latter 902 tons, compared with 320 tons and 352 tons respectively in 1922.

While the loss in writing paper exports was not as great as those of wrapping paper, the volume shipped during 1923 shows a distinct loss compared with 1922. Russia and Great Britain, which were the principal customers during 1922 both decereased their imports during 1923, as did Belgium and Hungary which ranked next in importance. In fact, with the exception of Germany, including the free port of Hamburg, shipments to all foreign markets including Latin America and the Far East were less in 1923 than in the previous year.

The loss in paper shipments were compensated for to some extent by increased shipments of paper board, particularly to the neighboring countries of Austria, Hungary, Rumania, and Poland. Austria, Italy, and Sweden also increased their imports of paper board from Czechoslovakia in 1923. Reports concerning the condition of the Czechoslovak paper industry at the end of 1923 were pessimistic. While the rise in German paper prices will improve competitive conditions in the foreign paper markets, the Czechoslovak mills are still handicapped greatly by the high transportation costs.

Goes With Oregon Pulp & Paper Co.

SALEM, Ore., July 28, 1924.—J. B. Wilt, formerly with Parsons Pulp and Lumber Company, Parsons, W. Va., has recently become connected with Oregon Pulp and Paper Company, Salem, Ore., as superintendent of the sulphite mill.

Mr. Wilt was with Parsons Pulp and Lumber Company for the past twenty-two years, the last fourteen of which he has had charge of the sulphite mil.

New York Market Review

OFFICE OF THE PAPER TRADE JOURNAL,
WEDNESDAY, August 6, 1924.

The paper market is slowly but surely making its recovery from slow business. Developments of the past two weeks have made that plain. An improvement so slight that it was hardly discernible was reported last week and that has continued until the improvement is plain to be seen and is generally heralded as a promise of good business before the month is over and, perhaps, exceptionally good business before the end of the year. All reports seem to indicate that business in general throughout the country is on the mend. It has been deplorably sick—so sick in fact that curtailment of production has been very general. It must be remembered, however, that the production capacity of the country has never been so great as it is today. Business had to be better than ever before to keep all the wheels moving and the material slackening of business cannot help but lead to over production in many lines unless there is an immediate curtailment of production. Curtailment of production had to be resorted to in the paper industry on this occasion as it was resorted to in many other lines of human endeavor. The best evidence of business recovery is the fact that wheels which have been resting are now revolving once more and mills that have been silent are starting to hum merrily again. Not everywhere has production been restored to full capacity. There are many mills and factories which are still silent altogether or working on an abbreviated schedule but there has been enough revival of business to indicate that the real period of the curtailment of production has been passed or is about to be passed. That means better business in every line as it means better business in the paper market. Several labor difficulties which have lent their influence to a partial prostration of business have also been settled and several others are in the process of settlement. This also has a wholesome bearing on the betterment of business conditions. Taken all in all early August is restoring business confidence and toning up the hopes of business men which, in spite of a show of optimism, had been sagging uncomfortably low. The hot weather continues to hang on and the business places continue to be depleted of their working force as the exodus to shore and mountain keeps up. Again this week prices stand about where they have been. Wholesale changes may be expected any day for many sales are being made at better prices than the quotations given, such sales, however, not being a fair mirror of the market but a slight index to the tendency of prices to soar when the proper time comes which is apparently not far distant.

Perhaps the most pronounced improvement in any particular line is in wrapping papers. Orders are coming in in increased quantities. Buyers have been buying very close and the indications are that they are near to the end of their supply. At any rate they are buying today much more freely and the demand for wrappings is expected to become quite active now.

There is little change in news print. The vacation period is still on—a period when people think a little less of reading, when fewer newspapers are bought and when advertising at a low ebb causes fewer pages in the daily papers. That does not mean that the demand is not good for it always is but just now it is suffering somewhat from the annual effect of the vacation period. That, however, will not last much longer.

Book papers are looking up. Buying is much more liberal than it has been. The printers seem to be enjoying more prosperity and receiving more orders for fine catalog work, etc.

Writing papers have also improved although the improvement is not quite so pronounced. The prices hold firm and an early rise is anticipated.

Tissues are in much better demand than they were a while ago. In almost every line quoted in the paper market in fact there can be discerned an improvement which varies from very slight to most satisfactory.

Mechanical Pulp

Mechanical pulp holds its own, with some slight improvement reported. The outlook at this time is considered promising.

Chemical Pulp

The chemical pulp market is in excellent shape. The demand is good and there is an especially brisk call for good imported pulp.

Rags

The knowledge of the shortage in the rag market has become common and has occasioned considerable alarm. The result is that more orders were booked during the past week than in any week for some time and it is reported that some sales were made at exceptionally good prices. Dealers claim that they are experiencing great difficulty in getting foreign rags and this inability to procure stock from abroad is causing deep concern. While prices are still holding at last week's quotation as a rule the very nature of conditions dictates that an advance will be recorded at any early moment.

Old Rope and Bagging

Old rope and bagging does not pick up very rapidly. The long looked for improvement does not, for some reason or other, seem to want to materialize.

Waste Paper

Waste paper demand continues to be on the increase. Prices are firm and an early advance is predicted, as some sales are already being recorded at a better figure than has been generally quoted.

Twine

Twine prices have not undergone to new schedule which dealers have had prepared and ready to put in effect for a couple of weeks. The demand continues slow.

Bids for Government Paper

WASHINGTON, D. C., August 6, 1924.—The Government Printing Office will receive bids on August 8 for 40,000 pounds (500 reams) of 25 x 38 end paper. The Printing Office will also receive bids on the same date for 75,000 pounds (2,000 reams) of 24 x 38—39 yellow sulphite writing paper.

The Government Printing Office has received the following bids for 50,000 pounds of 19 x 24—100, moss green desk blotting paper; Dobler & Mudge, 9.59 cents per pound; Mathers-Lamm Paper Company, 9.64 cents; R. P. Andrews Paper Company, 9.58 cents; Barton, Duer & Koch Paper Company, 11.25 cents; Whitaker Paper Company, 9.47 cents; Reese & Reese, 9.542 cents; District of Columbia Paper Manufacturing Company, 9.45 cents; R. A. Cauthorne Paper Company, 9.56 cents; Lindemeyr & Harker, 11.48 cents; The Eaton-Dikeman Company, 11 cents, and the Virginia Paper Company, Inc., 10.49 cents.

The Government Printing Office will receive bids on August 11 for 1,406 pounds (38 reams) of 21½ x 32½—37, pink antique book paper.

Test for Match Containers

Extensive tests of containers for Strike-Anywhere matches, conducted at the Chicago laboratory of the National Container Association, have been completed. A report has been furnished members, as well as the Bureau of Explosives. In all, 20 different types of containers were tested in one of the most extensive tests ever made. It is quite probable, according to report from association headquarters, that as a result of the tests, some of which were witnessed by office representatives of the Bureau of Explosives, some changes will be made in present I. C. C. Shipping Container No. 6, which governs the manufacture of all containers used for the shipment of Strike-Anywhere matches.

IMPORTANT SALE

THE RIORDON CO. LIMITED PROPERTIES

The properties of the Riordon Company, Limited, (now in liquidation), will be sold by auction on September 8, 1924, at the head office of the Company, 355 Beaver Hall Square, Montreal, P. Q., at 10 a. m. Standard Time. The principal items of property to be sold are as follows:—

MILLS and APPROXIMATE ANNUAL CAPACITY

Kipawa mill—50,000 tons bleached sulphite pulp

Hawkesbury mill—40,000 tons bleached sulphite pulp

Merritton Mill—9,000 tons bleached sulphite pulp

Calumet sawmill—15,000,000 feet of rough lumber

TIMBER LIMITS (under Crown licenses) and APPROXIMATE AREA

Quinze limits—2500 square miles—tributary to the Kipawa mill.

Rouge limits—1100 square miles—tributary to the Hawkesbury mill.

Dominion Bank limits—400 square miles in the Gatineau River watershed.

INTERESTS IN THE GATINEAU COMPANY, including entire Capital Stock

The Gatineau Company properties consist of a large undeveloped waterpower near the mouth of the Gatineau River, three sawmills of an approximate annual capacity of 75,000,000 feet of rough lumber, and approximately 5,400 miles of timber limits (held under Crown License) tributary to the power and to the saw mills.

TICONDEROGA STOCK

2424 shares out of a total issue of 4000 shares of the capital stock of the Ticonderoga Pulp & Paper Company, whose mills are at Ticonderoga, New York.

ALL CURRENT ASSETS, MISCELLANEOUS PROPERTIES AND WATER POWERS

The Kipawa and Hawkesbury mills produce the highest grade of bleached sulphite pulp manufactured. A relatively small expenditure in the Kipawa mill will increase its capacity to 65,000 tons per annum. The waterpowers of the Riordon and Gatineau Companies are among the most valuable in Canada and the Gatineau timber limits comprise the largest and best undeveloped pulpwood limits under single ownership in Canada.

For full details of the property to be sold and the conditions of sale, prospective purchasers are referred to the Official Notice of Sale being published in the *Montreal Gazette* and the *Boston Traveller* on July 14, 21 and 28 and on August 4, 11, 18 and 25, 1924, and in the *Montreal La Patrie* and *Ottawa Evening Journal* on July 28th and August 4, 11, and 18, 1924, or to a copy of the said Notice and a statement of particulars on file with the Liquidator, Gordon W. Scott, 142 Notre Dame Street, West, Montreal, and with the Royal Bank of Canada in Montreal, Ottawa, London E. C., and New York City.

NOTE: The sale of the above properties will not affect the operation of the mills, and the sale and delivery of pulp and lumber will be continued without interruption.

The foregoing statements are believed to be true, but do not constitute representations or warranties.

Miscellaneous Markets

OFFICE OF THE PAPER TRADE JOURNAL,
Wednesday, August 6, 1924.

While August finds the chemical market displaying no pronounced improvement, it does find chemical men in a more cheerful frame of mind than they have exhibited for some time and with a confidence that the worst is over. There is every evidence that better business may be looked for from now on.

One encouraging factor is the absence of distress tonnage in the market. Manufacturers have practically made a clean sweep of their stock. They did this by taking a decided stand weeks ago against the disposal of stock at a ruinous figure in order to obtain business. They chose to stop manufacture or to curtail production as the lesser of two evils and it is due to this determined attitude that the stock has been cleaned up and that prices have held up. Having gone so far there is no liklihood that they will permit prices to sag and, when they do finally move, it is almost certain that they will move upward rather than downward. There is every promise that the market will soon begin to realize increased orders from the paper industry which has been buying very little for some weeks. The paper mills are working better now, some of those which have been shut down entirely having started up while others which have been on part time are now operating on full time or on an extended schedule. The pulp mills are not following the pace so that the chemical market is not yet realizing the full benefit of this increased activity but the latter are expected to get back to normal activity soon as a matter of course.

Business in general is apparently looking up a little from all reports. Its recovery will be slow as long as the severe hot weather lasts, of course, but, taken all in all, the outlook for the Fall is most encouraging.

Another source of encouragement is found in the fact that the imports have showed a decided improvement during the past two weeks.

BLANC FIXE.—Blanc fixe continues to show little vitality. The demand is, perhaps, slightly better than it was a week or two ago but there is too little buying to make this commodity a profitable feature of the market. There is little stock in the market so that it keeps moving in spite of the meagre demand. The price holds up at from $75 to $80 a ton for the powder and from $50 to $55 for the pulp.

BLEACHING POWDER.—Bleaching powder is one of the commodities which has been cleaned up so effectually that there is no distress stock available. This is a good example of the result of the manufacturers' diplomacy in refusing to make sales at an unreasonable figure just for the sake of doing business. This has had the effect of making caustic soda firm. The price on bleaching powder is from 1.90 to 2.15 cents a pound.

CAUSTIC SODA.—As stated above caustic soda has profited by the absence of distress bleaching powder in the market. There is little caustic soda available and the demand is very satisfactory. The price holds firm at from 3.10 to 3.15 cents a pound on a flat basis at the works.

CASEIN.—The demand for casein is picking up a little. Buyers are showing a great interest in it. There is no distress stock in the market. The price is still from 10½ to 11 cents a pound.

CHINA CLAY.—China clay is perhaps showing a more active improvement than any other commodity. This is probably due to the fact that the paper mills are beginning to stock up for the winter, this program being responsible for some very generous orders which were booked during the past week. The price is from $16 to $20 a ton for the imported grades and from $12 to $15 a ton for the domestic grades.

CHLORINE.—There has been no change in chlorine. It manages to get just about as much demand and to hold its ground. The price remains at from 4.50 to 7.00 cents a pound in tanks.

ROSIN.—Rosin remains unchanged. There is a general lack of interest in it and the demand is no better than it was a week ago. The price is still from $5.75 to $5.80 for 280 pounds.

SALT CAKE.—Salt cake has survived the slump its demand has been subjected to and more orders found their way into the market during the past week, denoting better conditions in various trades which are liberal patrons of this commodity. The price is now from $18 to $21 a ton.

SODA ASH.—There is a little better life to soda ash this week. While the demand cannot be spoken of as good it is better than it was and the prospects for the near future seem bright. It is selling for 1.38 cents a pound on a flat basis at the works.

SULPHATE OF ALUMINA.—In spite of concessions which, it is reported, have been made in sulphate of alumina there is slight actual demand and the buyers seem devoid of interest and unwilling to be spurred into action. The price holds firm, however, at from 1.30 to 1.35 cents for the commercial grade at the Eastern works and from 2.10 to 2.25 cents a pound for iron free.

SULPHUR.—There is no better demand for sulphur, such buying as there is being of the hand to mouth variety. August should show a big pick up in this commodity, however. It is quoted at from $18 to $19 a ton.

TALC.—Talc appears to be on the eve of a new prosperity. For a long time it has been in poor demand but it recently began to show an improvement and is now going steadily ahead. The price is from $16 to $17 a ton.

White and Wyckoff 35 Years Old

HOLYOKE, Mass., August 4, 1924.—The White and Wyckoff Manufacturing Company is celebrating its 35th birthday. Established in 1889 with only eight employees, the company today employs about 700 skilled operatives and is rated the second largest business of its kind in the world. The company was originally started as the Smith and White Manufacturing Company, a partnership made up of F. D. Smith and E. N. White. J. L. Wyckoff joined the organization in 1891. Two years later Mr. White and Mr. Wyckoff purchased Mr. Smith's interest and formed the corporation under the present name. This management has continued uninterruptedly ever since, Mr. Wyckoff being the president and Mr. White the treasurer.

The present factory occupies 300,000 square feet of floor space. The company operates one of the largest printing plants in New England, 40 presses being required to take care of their work alone.

The first products of the company were writing tablets, block pads, composition books and school supplies but later a fine stationery department was added which is today the most important part of the business. The company has branch offices in New York, Philadelphia and Chicago and have 20 traveling representatives constantly covering the country.

New Jobbing House at Los Angeles

LOS ANGELES, Cal., July 31, 1924.—A new sundry jobbing concern is being formed at Los Angeles, California, to be known as the Pease Sundry Company, temporary offices are located at 406 Equitable Building, Los Angeles.

This concern will specialize in Sundry merchandise, saleable to the Drug, Sporting Goods, Stationery and Dry Goods buyers on the Pacific Coast.

Several men of extensive experience are connected with the new organization, the head of which will be A. V. Pease, a man of many years experience in these lines. They will be glad to have Eastern manufacturers offer their merchandise for sale in this territory. Credit references are the Citizens National Bank of Los Angeles.